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## MEDIA USE PATTERNS OF YOUNG MEN

## FINDINGS FROM THE YOUTH ATTITUDE TRACKING STUDY II

Market Research Branch





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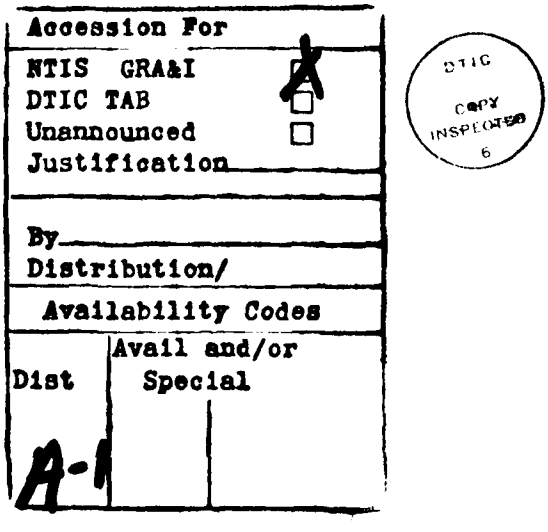
# Media Use Patterns of Young Men: Findings from the 1989 Youth Attitude Tracking Study II/Alternate Questionnaire Study







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by

Douglas L. Fountain
Robert M. Bray
David M. Sotolongo
Melodie A. Waitman

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This report has been prepared for the Directorate for Accession Policy, Office of the Assistant Secretary of Defense (Force Management and Personnel) under Contract Number MDA903-86-C-0066. The Research Triangle Institute has been the contractor for this study with Dale S. DeWitt and Robert M. Bray, Ph.D., serving as Project Directors.

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# TABLE OF CONTENTS

# TABLE OF CONTENTS (continued)

# LIST OF TABLES

# LIST OF FIGURES

# ACKNOWLEDGMENTS

This report is one of a series of topical reports for the 1989 Youth Attitude Tracking Study II (YATS II). YATS II is a study performed by the Research Triangle Institute (RTI) under Contract MDA903-86-C-0066 as part of the Joint Market Research Program sponsored by the Office of the Assistant Secretary of Defense (Force Management and Personnel) (OASD[FM&P]).

YATS II is a key component of the Joint Market Research Program, which contributes to policy formulation and development of recruitment marketing strategies. The Military Services provide comments and guidance through the Joint Market Analysis and Research Committee (JMARC). YATS II provides annual data about the propensity of young men and women to enlist in the active Military Services and in the Reserve Components. It also measures awareness of military advertising, contact with recruiters, and knowledge of the financial incentives for enlisting. This report is based on data collected as part of the 1989 YATS/Alternate Questionnaire Study (AQS), and describes the media use patterns and advertising awareness reported by 16- to 21-year-old men.

The Project Directors for the 1989 YATS/AQS were Dale S. DeWitt and Dr. Robert M. Bray of RTI. Barbara J. York was responsible for the sampling design, and Dale DeWitt coordinated data collection. Robert F. Helms reviewed and commented on both data and text. Teresa F. Gurley completed the typing and clerical requirements; and Richard S. Straw edited the report. Special thanks are due to the efforts of the telephone survey staff in completing the interviews; to Cheryl Whitacre for computer-assisted telephone interviewing (CATI) design and implementation; and to Dr. James R. Chromy for his interest and support. Of course, we are indebted to the respondents who provided the data for the study.

RTI acknowledges the efforts of individuals from the Department of Defense (DoD) in the successful completion of this study. At the Defense Manpower Data Center, Dr. Jerry L. Lehnus, Market Research Branch, was the principal DoD contact who provided specific direction during all stages of the effort. Bette Mahoney also provided valuable guidance on the report.

In OASD(FM&P), Dr. W. S. Sellman, Director, Accession Policy, and Captain Deborah Rogers provided critical policy guidance. Finally, we would like to thank the executive committee and members of JMARC, who provided continuing support for the study and made valuable suggestions regarding questionnaire modification.

# EXECUTIVE SUMMARY

This report describes media use patterns of young men for television, radio, newspapers, and magazines. Data were drawn from the 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study (YATS/AQS), a 20-minute computer-assisted telephone interview (CATI) with a probability-based sample of 476 men aged 16 to 21. The YATS/AQS was designed to gather information about different aspects of youths' backgrounds, interests, attitudes, and behaviors than were possible in the main 1989 YATS survey.

Data are discussed for the total YATS population and a subset of respondents who expressed an interest in serving in the military (the enlistment interest group). Sociodemographic variables such as age, race/ethnicity, school status, and employment status were used to examine and classify media use patterns. One sociodemographic measure, school grades, was used as an indicator of aptitude. Advertising awareness, a measure of advertising recall, was also a key measure specific to this report.

Significant differences in television viewing were found by age, race/ethnicity, and employment status. Among the total YATS population, television was watched an average of 16 hours per week by 16- to 17-year-olds compared to 12 hours per week for 18- to 21-year-olds. Blacks watched significantly more television each week (23 hours) than did Hispanics (14 hours) or whites (13 hours). Those employed full time watched significantly less television per week (11 hours) than did those who were not employed (17 hours). Within the television media, comedy was the most popular programming among all young men. Sports, mysteries/adventures, and news also were popular program choices. Where feasible these types of programs should be considered for military advertising.

Radio listening varied by age, school group, and employment status. Radio listening levels were significantly higher for men aged 18 to 21 (29 hours per week) than for those aged 16 to 17 (22 hours per week). High school graduates listened to the radio significantly more (33 hours per week) than did other school groups (about 22 hours per week). In addition, radio was listened to significantly more by men employed full time in the total YATS population (32 hours per week) than by those in other employment statuses (about 22 hours per week).

Rock and roll music was the overwhelming programming preference among all respondents, although there were differences in the type of rock music that was preferred. The total YATS population favored "hard" rock programming over "soft" rock, while the opposite was true for those who expressed enlistment interest. Programming preferences must also be combined with information about listening time. Men aged 16 to 21 years were most likely to listen to the radio during the early morning and late at night. Among the total YATS population, for example 21% reported listening to the

radio at night, and 16% listened during the morning. These data on radio listening suggest that radio advertising for the military may benefit by broadcasting on stations that specialize in "hard" and "soft" rock music and should include broadcasts during late night and early morning hours.

On average, men aged 16 to 21 read newspapers about 4 days per week. There were no significant differences in reading patterns among sociodemographic groups or for those in the YATS population and those with enlistment interest. Sports was the most popular section of the newspaper (58% for the YATS population, 56% for the enlistment interest group), followed by the front page (45%, 35%, respectively), comics (25%, 22%), and local/state news (25%, 25%). These data on newspaper reading suggest that newspaper advertising is equally likely to reach individuals within all sociodemographic groups. The most effective section of the newspaper to place military advertising is the sports section.

Roughly 75% of all young men read magazines. Among the YATS population, 16- to 17-year-olds were significantly more likely to read magazines (80%) than were 18- to 21-year-olds (70%), although percentages for both groups were high. Respondents seeking employment also claimed high magazine readership among the total YATS population (83%). A significantly lower percentage was reported for full-time employees in the YATS population (68%). These data on magazine reading suggest that military advertising in magazines appears likely to reach a large proportion of 16- to 21-year-old men because magazines are very popular; magazine advertising is more likely to be effective in reaching men aged 16 to 17 and men aged 16 to 21 who are not employed but looking for work.

Correlations were computed to examine the relationship of advertising awareness and media use to assess if higher levels of media use were reflected in greater advertising awareness. Results showed small correlations (.15 or less), indicating weak relationships between the awareness of advertising and the use of media. Data on recall of messages, however, showed high awareness of military advertising for television (81%) and magazines (53%), but lower awareness for radio (32%) and newspapers (19%). These same patterns held for those with enlistment interest and those with higher grades. These data suggest that awareness of military advertising may be high even though it is not associated with high media exposure and that, at least for television and magazines, part of the advertising message about the military is reaching young men.

# 1. BACKGROUND AND APPROACH

The U.S. Armed Forces must target recruiting resources to meet effectively the manpower challenges facing the Military into the next century. A key element for effective targeting is cost-effective military advertising. Understanding media use patterns will provide information to aid in understanding how to target advertising resources.

This report describes media use patterns of young men aged 16 to 21. Use of four media--television, radio, newspapers, and magazines--are examined and tabulated by the sociodemographic characteristics of age, race/ethnicity, school status, school grades, and employment status. Results are presented for the total Youth Attitude Tracking Study (YATS) population of young men and, where sample sizes are large enough, for young men who expressed positive enlistment interest. Data for this report are drawn from the 1989 YATS/Alternate Questionnaire Study (YATS/AQS). This study collected information about media use from a national probability sample of 476 young men in a 20-minute computer-assisted telephone interview (CATI).

This chapter briefly discusses the importance of understanding media use patterns and its association with evaluating advertising campaigns. An overview of the 1989 YATS/AQS is also provided, as are the objectives of this report. The organization of the remaining chapters in this report is provided at the end of this chapter.

## A. Media Use and Advertising

Advertising provides the Military with a means to motivate youths toward enlisting in the Armed Forces. At the least, advertising may trigger the recall of knowledge or an impression of military service. At the most, advertising may provide substantive information about the benefits to be derived from military service. In either case, effective military advertising strategy is determined in part by the message successfully reaching its intended audience. Advertising messages must be provided *when* and *where* targeted youth are apt to be exposed to them. Waste and inefficiency result when advertising campaigns are not displayed on media used by those either eligible for, or interested in, enlisting.

To develop an effective advertising strategy, various questions need to be answered about media use patterns of young men, particularly in terms of socioeconomic characteristics. For instance, there are questions about the relative levels of television viewing among different age groups. Moreover, not only do the types of media themselves need to be examined, but categories within each media should be explored. For example, what type of radio programming is preferred by different age groups of youths, and at what time of the day or night?

Furthermore, it is important to know not only what the relevant media are, but also to know whether media use is related to advertising awareness. To develop a successful advertising strategy, it is helpful to gather information on media use of the targeted audience. For example, does watching many hours of television mean that military commercials on television are better remembered? Do youths have a higher recall of military advertisements on the radio or in magazines?

## B. 1989 YATS/AQS

Since 1975, under the sponsorship of the Department of Defense (DoD), a YATS administration has been conducted each fall. The purpose of YATS has been to track the intentions of youths to enlist in the active Military Services (since 1975) and the Reserve Components (since 1983) and to understand the backgrounds, attitudes, and motivations of military-eligible men and women.

In addition to the main YATS administration, the 1989 YATS/AQS was conducted to pilot test alternative questionnaire scenarios for the main YATS questionnaire and to provide more detailed information about selected aspects of the attitudes and perceptions of young men aged 16 to 21. Special components were included in the alternate questionnaire that probed youths' attitudes about careers and lifestyles, especially as these relate to the military. Of special interest to the current report was a series of questions that examined media use patterns.

YATS/AQS respondents were selected using a national probability sample, and the data reported in this document were weighted to provide a national-level estimate. Telephone interviews were conducted with 476 males aged 16 to 21. Additional details about the study methodology are provided in Appendix A.

One goal of the 1989 YATS/AQS was to provide explanatory information that might enhance the main YATS questionnaire used in the fall YATS administrations. Accordingly, many of the new items contained in the 1989 YATS/AQS were designed to provide *general* information on a subject area (e.g., open-ended questions about television programs watched). Many items from the main YATS questionnaire were included in the alternate questionnaire, and some were modified. Thus, the data generated from the 1989 YATS/AQS are comparable to data from the main YATS administration for some items, but do not match for other items.

## C. Report Objectives

This report represents an analysis of selected aspects of the data from the 1989 YATS/AQS. The purpose of this report is to offer a preview of the media use patterns and characteristics of the YATS population among various sociodemographic groups. For this report, we have considered the media of television, radio, newspapers, and magazines.

Specific components of interest in this report include reported media use, advertising awareness, and enlistment interest. A major objective of this study was to examine youth attitudes, perceptions, and media characteristics in greater depth than had been possible with the basic YATS administrations. This report examines the following questions:

- What are the types and levels of media use by 16- to 21-year-old young men?
- What are the differences in media use among young men in different sociodemographic groups, both among the general YATS population and among those interested in joining the Military?
- What is the advertising awareness generated by the broadcast and print media?
- How does awareness vary by the different types of media for different target populations, such as young men interested in enlistment and youths who receive higher grades?

Throughout this report, we discuss three groups of individuals: those from the entire YATS population, those who expressed an interest in military enlistment, and those who reported receiving higher grades in high school. The first group consists of those for whom any general level of advertising and recruiting efforts could be focused. The second group may represent a cost-effective advertising target. The third group could be an attractive population for future military advertising campaigns.

## D. Organization of the Report

Chapter 2 summarizes the measurement approach used for key variables; it then describes the sociodemographic characteristics of the YATS population. The characteristics considered are age, race/ethnicity, school status, school grades, and employment status.

Chapter 3 describes the media use patterns of the YATS population and, where sample sizes permit, those interested in serving in the Military and those with higher grades. Frequencies are reported of various types of media use (such as hours per week of television viewing) and choice of programming (such as type of music listened to on the radio and sections of the newspaper read). This chapter also examines advertising awareness and discusses the awareness generated by the different media for the target populations of youths interested in serving and youths with higher grades.

Chapter 4 provides a summary and discussion of the report's findings, including the key measures and population characteristics, as well as the media use patterns and

characteristics. The chapter closes with a discussion of the advertising awareness reported by young men aged 16 to 21 during the 1989 YATS/AQS administration.

Appendix A details the methodology and measurement approach, and Appendix B provides summary data tables.

# 2. MEASUREMENT APPROACH AND YATS/AQS POPULATION CHARACTERISTICS

This chapter describes key measures used in this report from the 1989 YATS/AQS. These variables are described and, where appropriate, distinguished from similar measures from the 1989 YATS main questionnaire.

The sociodemographic characteristics of the 16- to 21-year-old male respondents who comprised the YATS population are also described in this chapter. These characteristics are age, race/ethnicity, school status, school grades, and employment status. Finally, media use overlap is discussed, and the correlations among the television, radio, newspaper, and magazine media are presented.

## A. Measurement Approach

This section details the measures for six key variables examined in this report. These variables are:

- Enlistment interest,
- School grades,
- Employment status,
- Media use variables,
- Advertising awareness, and
- School status.

### 1. Enlistment Interest

The central measure used in this report is *enlistment interest*. To measure this, respondents were asked the following question:

> Now I'd like to ask you how likely it is that you will be serving in the Military in the next few years. Would you say:
>
> - Definitely,
> - Probably,
> - Probably not, or
> - Definitely not?

*Positive enlistment interest* is defined as having answered "definitely" or "probably"; *negative enlistment interest* is defined as having answered "probably not," "definitely not," "don't know," or "refuse" to the question.

This measure differs from the composite active propensity measure used in previous YATS reports. Propensity has in prior YATS administrations been ascertained by asking youths about the likelihood that they would, in the next few years, be serving in one or more of the following active DoD Services: Army, Navy, Marine Corps, or Air Force. Although the same series of questions was included in the 1989 YATS/AQS questionnaire, the lead-in wording to these questions was altered from that used in the 1989 YATS main questionnaire and resulted in a significantly different distribution of responses for the two studies. Because of these differences, the traditional propensity measure was not used for reporting results in this report.

The measure of enlistment interest, on the other hand, yielded data that were comparable with the same measure used in the 1989 YATS main questionnaire. In addition, the measures of enlistment interest and composite active propensity are similar in intent and purpose.

## 2. School Grades

Youths were asked what kind of grades they received in high school. For this report, higher grades are defined as any combination of A's and B's exclusively. Specifically, young men were classified as having higher grades for the following responses:

- Mostly A's,
- Mostly A's and B's, and
- Mostly B's.

Young men were classified as having lower grades for the following responses:

- Mostly B's and C's,
- Mostly C's,
- Mostly C's and D's, and
- Mostly D's and lower.

School grades were used as a rough measure of aptitude. This measure differs from the estimation of youth aptitude in the 1989 YATS main questionnaire that was based on the work of Orvis and Gahart (1989) and represented the likelihood of youths scoring in the top 50% of the Armed Forces Qualification Test (AFQT). Some of the data necessary to construct the predicted AFQT measure, however, were not provided by the 1989 YATS/AQS. Thus, for this report we have used grades as a *proxy* for aptitude.

### 3. Employment Status

A two-part question was included in the 1989 YATS/AQS that addressed employment status. Respondents were first asked if they were currently employed; if they responded "yes," they were asked whether it was on a full-time or part-time basis. To determine if youths who were not working were seeking employment, they were asked to indicate the main reason they were not working. Responses were coded as "looking" if respondents indicated:

- Looking,
- Company went out of business,
- Laid off,
- Fired,
- Temporary job completed,
- Job dissatisfaction, and/or
- Moved from area.

Responses were coded as indicating "not looking" if respondents indicated:

- Needing more education/training,
- Transportation difficulties,
- Medical/health reasons,
- Attending school,
- Needed to stay at home with children,
- Child care too expensive, and/or
- Spouse doesn't want me to work.

Thus, four levels of employment status were created: *full-time employed*, *part-time employed*, *not employed / looking*, and *not employed / not looking*.

The procedure for deriving employment status closely paralleled the procedure used for the 1989 YATS main questionnaire. The only difference was that the main questionnaire included a question that directly addressed whether a youth was seeking employment; the alternate questionnaire, on the other hand, coded "looking" and "not looking" according to the response as to why he was not working.

### 4. Media Use Variables

Measures of media use examined in this report include television viewing, radio listening, newspaper reading, and magazine reading. Responses to questions regarding media use were generally of two different types: those that were easily coded into distinct categories, and those (primarily from open-ended, verbatim responses) that

could not be neatly placed into mutually exclusive categories. Although the latter type of items may not seem as precise as the former, the nature of the question demanded nonexclusive categorization of responses. The questions, moreover, were designed to develop more meaningful questions for future YATS administrations. To this end, it was considered better to allow the verbatim responses to define the categories than to force answers into already defined, broad categories.

In addition, the information received from verbatim responses provided important insight into media use. Mutually exclusive categories i an area such as television programming, for example, may have overemphasized certain categories. In addition, the detailed nature of the categories revealed areas where popularity of use was not relevant to advertising purposes, as in the case of videocassette movie rentals. If these responses had been coded simply as "movies," they would have inflated the advertising advantage of that category.

Several types of variables that addressed media use were included in the 1989 YATS/AQS. These variables are described in the next several paragraphs.

**Frequency of Use Variables.** The frequency of television and radio use was measured in hours per week that respondents reported watching and listening, respectively. The frequency of newspaper use was measured in days per week that respondents reported reading newspapers. In each of these cases, the statistics reported are averages (weighted means). Magazines had no frequency measure; instead, data indicated only whether youths ever read magazines.

**Television Programming.** Frequencies (percentages) of coded responses were computed to an open-ended question about the types of programs that youths watched. Responses varied from situation comedies (sit-coms) to family/drama; program types also included sports, movies, mysteries/adventures, news, videocassette recorder (VCR), talk shows, documentaries, soap operas, and game shows. VCR referred to renting movies for viewing on a VCR, and movies referred to watching either network programming or, more likely, cable channels such as Home Box Office or Showtime.

Because verbatim responses were collected for television programming, there was some overlap of categories. For example, a response may have been coded as a comedy or as sit-com, depending on the specificity of the response, even though the categories are very similar. Likewise, movies could have been overlapped with several other categories, such as comedy, documentaries, and mysteries/adventure.

**Radio Programming.** The type of music that youths listened to on the radio, such as rock and roll, classical, or country and western was also assessed. Rock and roll was further divided into hard rock, soft rock, classical rock, and pop rock. In contrast to television programming, radio programming lent itself to mutually exclusive categories. Questions about radio programming were asked in a closed format, and responses were coded according to the response categories of the alternate questionnaire.

**When the Radio Was Listened to.** Youths were asked open-ended questions about when they listened to the radio. Generally, responses ranged from "early morning" to "after 6:00 pm"; some responses included "in the car" or "when home." Through inference, we determined the times of day during which the radio was listened to and recorded the responses to the following categories:

- Morning (early, late, or any),
- Afternoon (early, late, or any),
- Evening (early, late, or any), and/or
- All day.

As with television programming, these categories were not mutually exclusive. For example, "any morning" could also have meant "early morning" or "late morning." Responses that were specific were coded into a time slot; those that were vague were coded into the "any" category.

**Reading of Newspaper Sections.** The measure of newspaper use also included the percentage of young men who reported reading various sections of the paper, such as sports, front page, and comics.

**Reading of Magazines.** The measure of magazine use specified the percentage of young men who reported that they read magazines.

## 5. Advertising Awareness

Advertising awareness is one measure of advertising effectiveness. The specific measure employed in this analysis probed whether youths recalled ever seeing advertising for any of the Military Services. If the response was "yes," they were then asked if they remembered seeing (or hearing) the advertisements on television, in a magazine, in a newspaper, on a billboard, on a poster, or on the radio. This report includes advertising awareness data on television, radio, newspapers, and magazines.

## 6. School Status

School status is a five-level variable that describes an individual's status with respect to high school. The five levels include:

- *Postsecondary students*, who are high school graduates currently attending college or business/vocational school;
- *High school graduates*, who are not students and have graduated from high school;

- *High school seniors*, who are high school students in their final year;
- *Nonsenior high school students*, who are students not yet in their senior year; and
- *Noncompleters*, who did not, or will not, graduate from high school; this includes those with GED or ABE certificates.

The definition of school status in this report is identical to that used previously in YATS propensity reports (Bray, Jordan, & Bailey, 1989a; Bray, Curtin, Theisen, & York, 1989b; Bray, Curtin, York, Williams, Helms, & Fountain, 1990).

## B. Population Characteristics

This section describes the sociodemographic characteristics for the 1989 YATS/AQS population and illustrates the results graphically. Tables summarizing the actual distributions are provided in Appendix B. Generally speaking, sociodemographic distributions in the 1989 YATS/AQS sample parallel those observed in the 1989 main YATS population.

### 1. Age

Figure 2.1 presents the age distribution in two categories for the YATS/AQS population of young men aged 16 to 21. As shown, the two groups were roughly equal in size. Slightly more than half of the population fell into the 18- to 21-year-old age group (55.5%), while the remainder (44.5%) were in the 16- to 17-year-old age group.

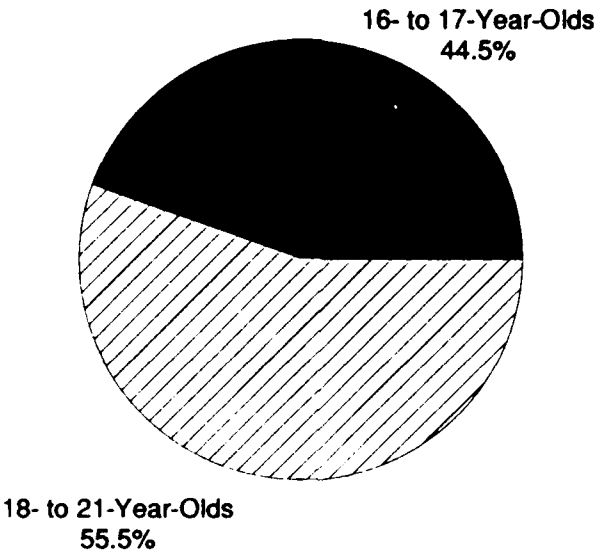
### 2. Race/Ethnicity

The distribution of the YATS/AQS population with respect to race/ethnicity is illustrated in Figure 2.2. The majority of young men in the YATS population were white (71%), and a substantial number were Black (13%) and Hispanic (11.4%). The "other" category was dropped from further analysis due to its small sample size (4.6%).

### 3. School Status

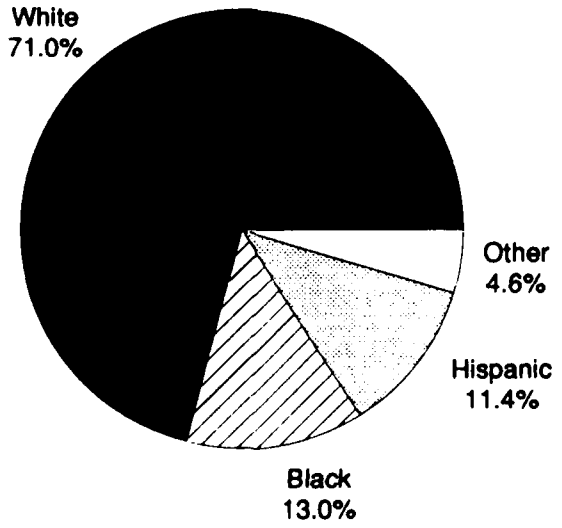
Figure 2.3 presents the YATS/AQS population percentages by school status. There was a relatively equal distribution among the various school groups. Approximately one third (32.2%) were nonsenior high school students, while 14.9% were seniors in high school, giving a total high school population percentage of 47.1%. A little over 20% had already graduated from high school, and 16.9% were postsecondary students. Finally, 15.7% were high school noncompleters.

## Figure 2.1 Age Categories of the YATS/AQS Population



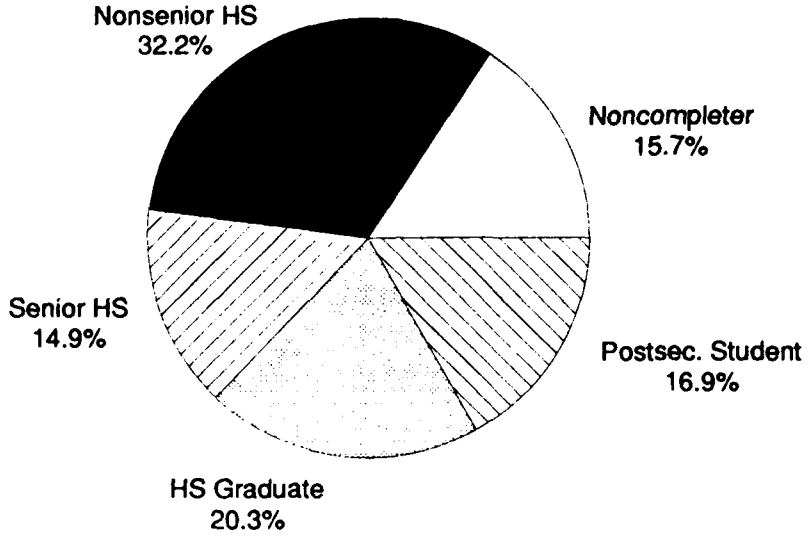

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Figure 2.2 Race/Ethnicity of the YATS/AQS Population




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

**Figure 2.3 School Status of the YATS/AQS Population**




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

### 4. School Grades

Figure 2.4 shows the average school grades for the YATS/AQS population. The majority (58.9%) of students reported receiving lower grades, while the remainder (41.1%) reported receiving higher grades. This distribution approximated the distribution of AFQT scores in the 1989 YATS main administration, in which roughly 50% of the youth were predicted to be in the higher aptitude category.

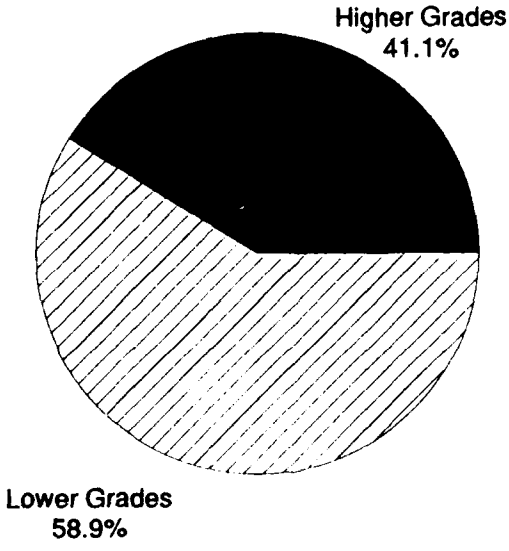
### 5. Employment Status

The employment status for this population is depicted in Figure 2.5. The majority were employed at some level: 26% full time and 29% part time. Among those not employed, 14.1% were looking for work, while 30.9% reported they were not seeking work. Given the ages of the respondents and the fact that many were still in school, the percentage of those not working was not surprising. In previous YATS analyses, for instance, employment status was best interpreted in light of a respondent's school status (Bray et al., 1989a and 1989b, 1990). Not enough cases were present, however, in the current study to make such analyses feasible.

## C. Media Use Overlap

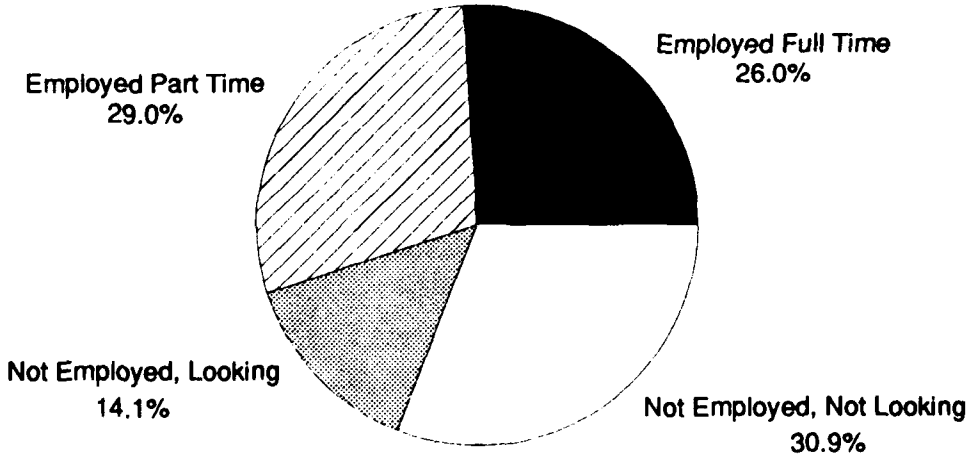
An important issue to be considered in media use is the degree of overlap among media types, that is, the extent to which the use of one media correlates with the use of another. To determine the extent of media use overlap, correlations were computed of

## Figure 2.4 Grades Received in School for the YATS/AQS Population




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Figure 2.5 Employment Status of the YATS/AQS Population




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

the frequency of use of television, radio, newspapers, and magazines. Results are presented in Table 2.1.

All correlation values for media use comparisons were low. The only two media that had any appreciative overlap of use by young men were television and radio, but even this correlation was not strong (p=.07). Thus, the use of each media was relatively independent of the use of other media.

## Table 2.1 Correlations Among Media Types

| | | Media type | | | |
|---|---|---|---|---|---|
| Media type | N | Television | Radio | Newspaper | Magazine |
| Television | 461 | 1.000<br>(.00) | | | |
| Radio | 385 | .09<br>(.07) | 1.000<br>(.00) | | |
| Newspaper | 398 | .03<br>(.498) | .08<br>(.166) | 1.000<br>(.00) | |
| Magazine | 476 | .07<br>(.15) | -.0625<br>(.22) | .0125<br>(.80) | 1.000<br>(.00) |

Note. Tabled values represent the Pearson correlation coefficient, which indicates the level of relationship between the frequency of use of different media. Figures in parentheses represent the level of significance of the correlation coefficient (p-value). P values less than .05 are generally considered significant.

Estimates are based on some variables for which there may be missing data.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

# 3. MEDIA USE AND TARGETING

This chapter explores the media use of young men aged 16 to 21. Media reported on are television, radio, newspapers, and magazines. Data are presented for two groups: (a) the total *YATS population* and (b) a subset of this population who indicated they definitely or probably would be serving in the Military in the next few years. We have labeled this subset group *enlistment interest*.

Differences in media use were compared across levels of sociodemographic characteristics using the t-statistic. T-tests as applied here allow for the analysis of differences in percentages and means (averages) by taking into account variation in the data that are being compared. Where differences in media use are statistically significant ($p<.05$), the p-values are discussed in the text. Statistical significance indicates that the observed differences are not due to random chance.

In the case of mean frequency of use of television, radio, and newspapers (and of reported use of magazines), the sample size for the enlistment interest group was too small ($N<25$) in the race/ethnicity, school status, and employment status measures to obtain reliable estimates. These data are not discussed, therefore, and are not presented in the figures included in this chapter. Data for those sociodemographic levels in which sufficient cases were present, however, are shown in the figures and reported in the data summary tables provided in Appendix B. Adequate sample sizes for the enlistment interest group were available for the age and school grades categories for all four media analyses.

## A. Television

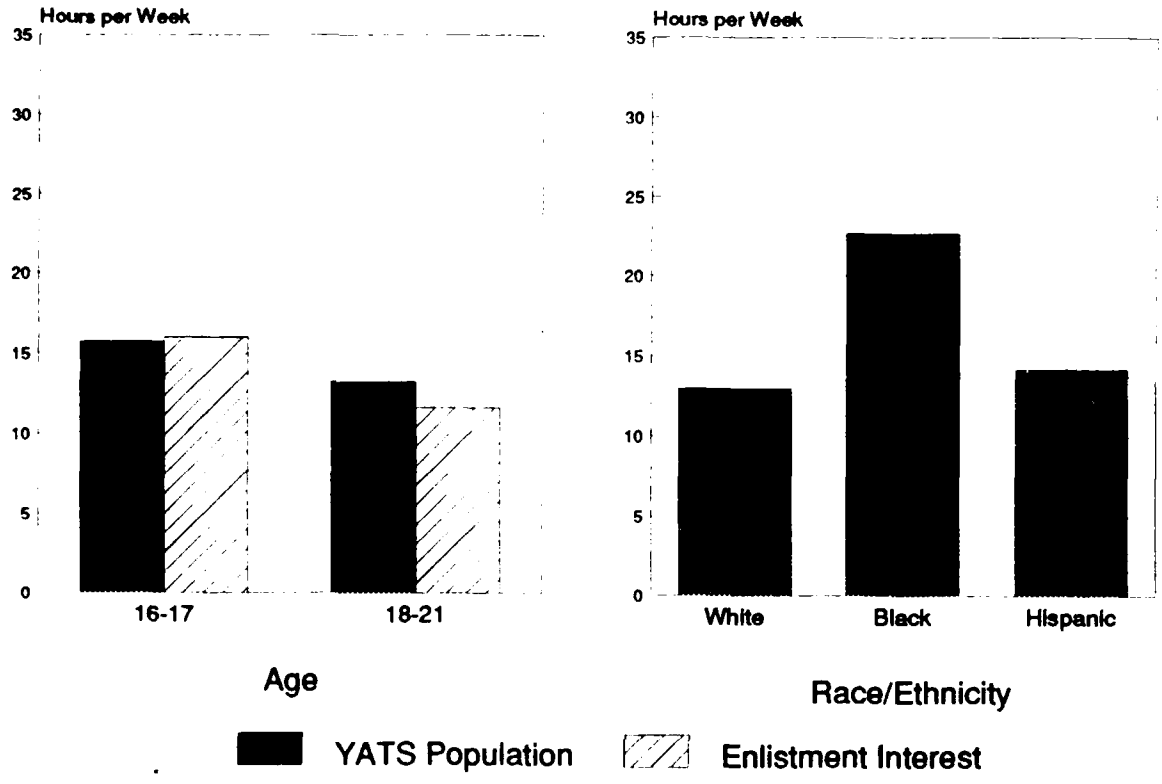
This section details the amount of television viewed by young men in the YATS population and by those with enlistment interest, as well as the types of programs they preferred to watch. Sample sizes for the frequency of use variables in the enlistment interest population were large enough for analyses only in the age and school grades categories.

### 1. Hours Watched, by Demographics

**Age.** The left panel of Figure 3.1 shows the number of television hours viewed per week by age. The data show a pattern of less television viewing among the 18- to 21-year-old age group than among the 16- to 17-year-old age group that was significant only for young men with enlistment interest (11.6 hours per week vs. 16.0 hours per week; $p=.05$).

**Race/Ethnicity.** Figure 3.1 also indicates that Blacks watched significantly more hours of television than whites or Hispanics in the YATS population. Blacks overall

## Figure 3.1 Number of Hours Spent Watching Television Each Week, by Age and Race/Ethnicity




Note. Sample size less than 25 for race/ethnicity groups with enlistment interest; therefore, estimates not reliable.

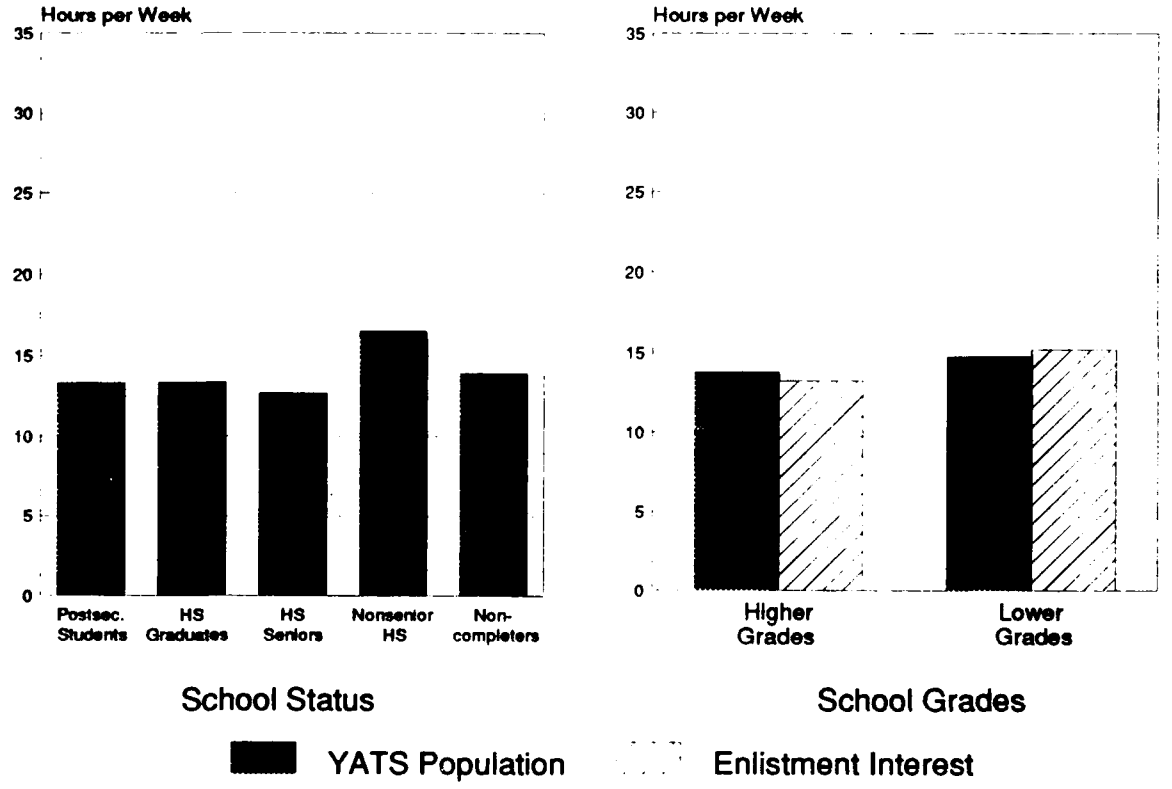
Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

averaged 22.7 hours of television viewing per week, compared to 14.1 hours per week for Hispanics ($p=.02$) and 13.0 hours per week for whites ($p<.01$).

**School Status.** There were no significant differences in hours of television viewing among the five school groups in the YATS population (Figure 3.2). That is, the apparent differences in school status noted in Figure 3.2 were merely chance fluctuations.

**School Grades.** Similarly, there was no significant difference between respondents with higher grades (13.7 hours per week) and respondents with lower grades (14.8 hours per week) with respect to television viewing among the total YATS

## Figure 3.2 Number of Hours Spent Watching Television Each Week, by School Status and School Grades



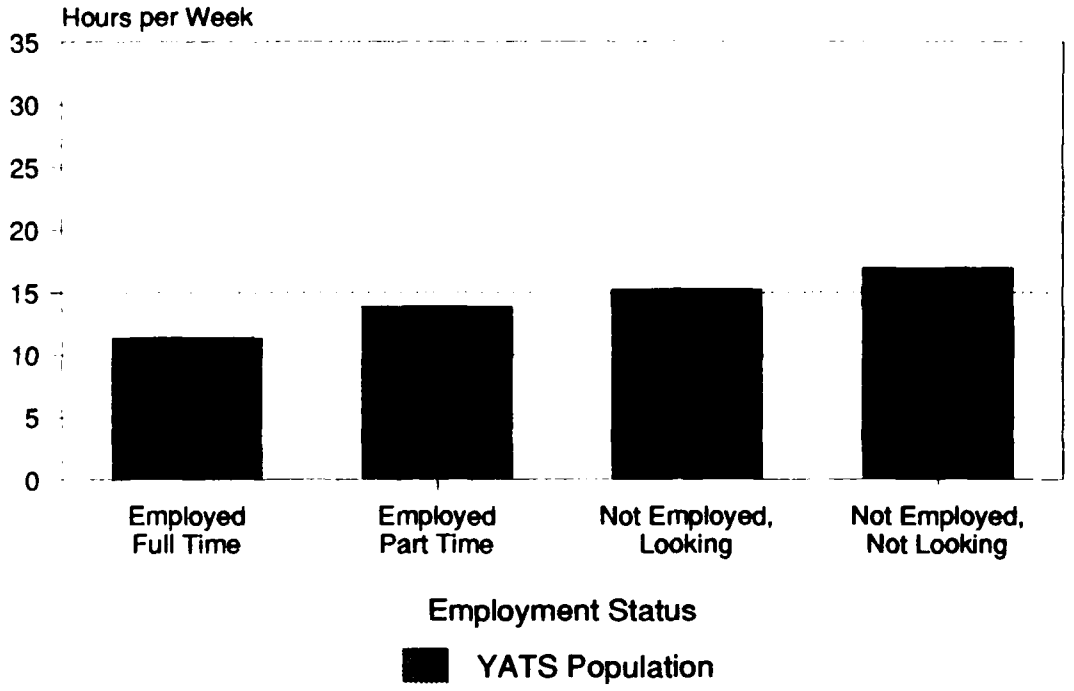

Note. Sample size less than 25 for school status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

population (Figure 3.2). Among those with enlistment interest, there was also no significant difference found between the two grade categories (13.2 hours per week for those with higher grades, 15.2 hours per week for those with lower grades).

**Employment Status.** Figure 3.3 presents television viewing by employment status. The number of hours of television watched per week was significantly lower ($p=.01$) for respondents employed full time (11.4 hours) compared to respondents in the YATS population who were not employed/not looking (17.0 hours). Those not employed but looking reported watching television 15.3 hours per week; those who were employed part time reported watching television 13.9 hours per week.

**Figure 3.3 Number of Hours Spent Watching Television Each Week, by Employment Status**




Note. Sample size less than 25 for employment status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

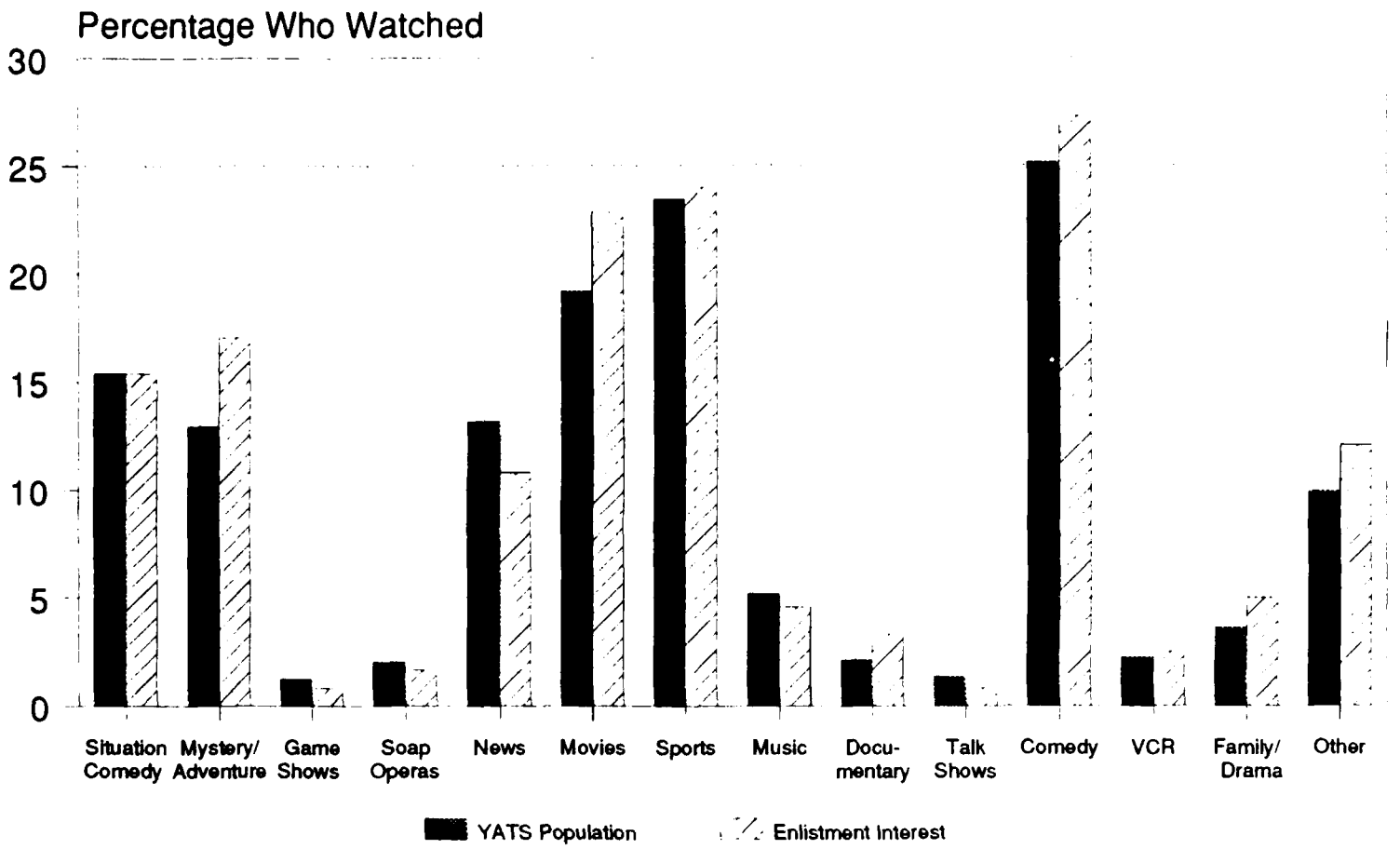
## 2. Program Preference

Figure 3.4 shows the types of programs watched by the YATS population and by respondents who expressed enlistment interest. The most popular television programs among the YATS and enlistment interest populations, respectively, were

- Comedy: 25.2%, 27.3%,
- Sports: 23.4%, 24.0%, and
- Movies: 19.2%, 22.9%.

Among the YATS population, the next highest viewership categories were situation comedies, or sit-coms (15.4%), and mysteries/adventures (13.0%). Among the enlistment interest group, mysteries/adventures (17.0%) claimed a slightly higher viewership than sitcoms (15.4%). News also received favorable viewership: 13.2% among the YATS population and 10.8% among the enlistment interest group.

**Figure 3.4 Percentage Who Reported Watching Various Types of Television Programs**




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

It should be noted that comedy and sit-coms are almost indistinguishable and, if combined, form a very large viewership for both groups. Also of note is that the movies category included VCR rentals and pay programming stations (such as Home Box Office) that for the most part have limited commercial advertising.

The least watched television programs among the YATS and enlistment interest populations, respectively, were music (5.2%, 4.6%), family/dramas (3.6%, 5.0%), VCR (2.3%, 2.5%), documentaries (2.1%, 3.3%), soap operas (2.0%, 1.7%), talk shows (1.4%, 0.8%), and game shows (1.2%, 0.8%). Combined, these categories claim roughly 5% of the viewership of both the total YATS population and the enlistment interest group. Somewhat surprising was the unpopularity of the music category, which included viewing the Music Television (MTV) channel.

## B. Radio

Along with television, radio is a widely used media market among youths. The data showed many similarities between how young men use both media, but it also revealed differences in the characteristics of radio users from television users. In the presentation of data on the frequency of radio use, sample sizes in the enlistment interest population were large enough for analyses only in the age and school grades categories.

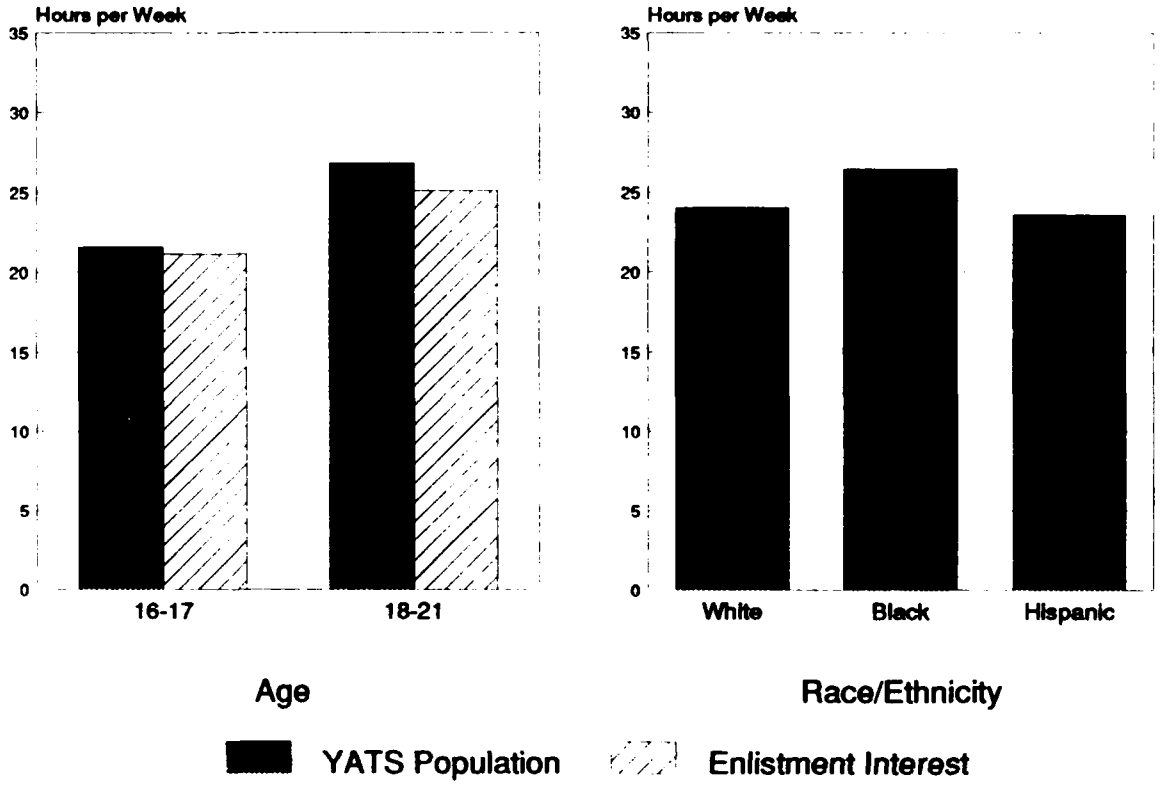
### 1. Hours Listened, by Demographics

**Age.** Figure 3.5 shows the number of hours per week of radio listening for the two age groups (16- to 17-year-olds and 18- to 21-year-olds). Whereas the number of hours of television watched was lower for 18- to 21-year-olds, the opposite pattern was reported for radio. The number of listening hours was significantly higher for 18- to 21-year-olds among the total YATS population: 21.6 hours versus 28.6 hours per week ($p=.05$). Although the same pattern prevails, there was no significant difference between 16- to 17-year-olds (21.1 hours) and 18- to 21-year-olds (25.1 hours) for the enlistment interest group.

**Race/Ethnicity.** Figure 3.5 also shows the radio listening for whites, Blacks, and Hispanics. There were no statistically significant differences found among the race/ethnicity categories with respect to amount of radio listening time per week for the YATS population.

**School Status.** The amount of radio listening by school status is presented in Figure 3.6. As previous data indicated, the amount of radio listening was higher for older youth among the YATS population (see Figure 3.5); accordingly, it was expected that postsecondary students and high school graduates would listen to the radio significantly more than would high school students. This, in fact, was true only for the high school graduates. There was a significant difference in the YATS population between

## Figure 3.5 Number of Hours Spent Listening to the Radio Each Week, by Age and Race/Ethnicity




Note. Sample size less than 25 for race/ethnicity groups with enlistment interest; therefore, estimates not reliable.

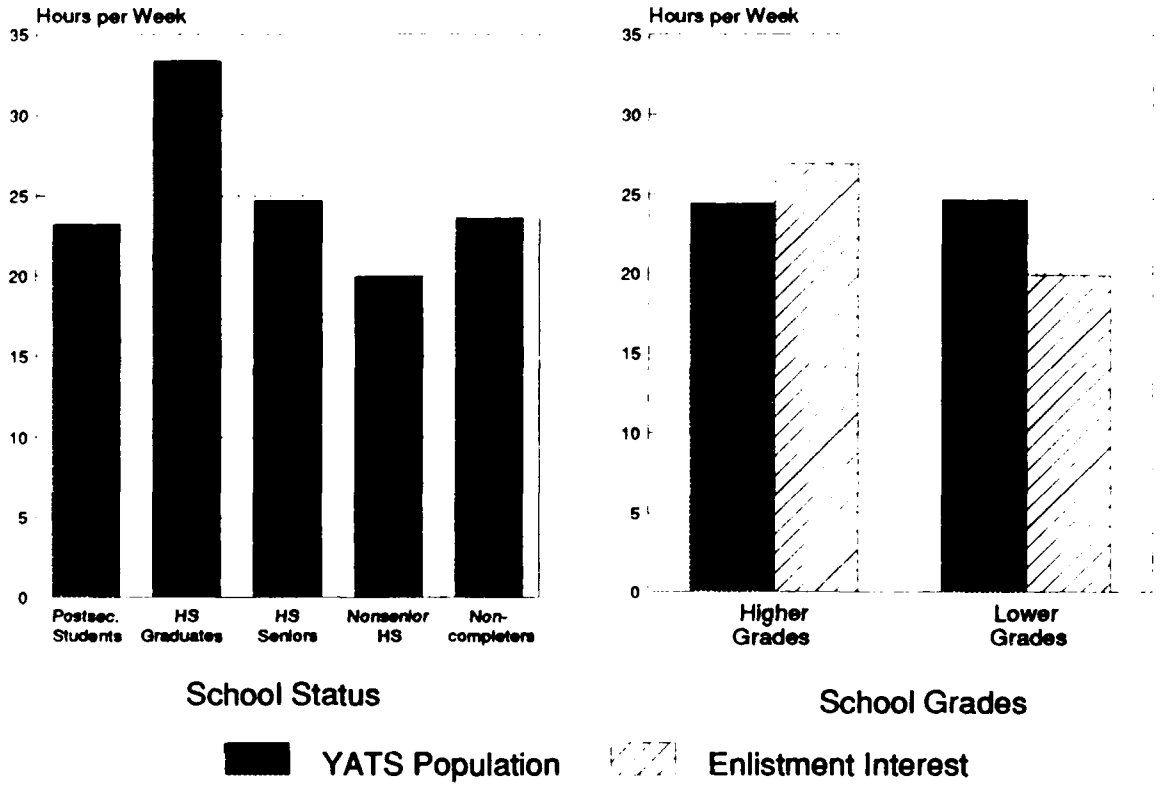
Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

high school graduates (33.3 hours per week) and nonsenior high school students (20.0 hours per week, p=.00), postsecondary students (23.2 hours per week, p=.01), and noncompleters (23.6 hours per week, p=.02).

**School Grades.** The data reported in Figure 3.6 suggest that, among the enlistment interest group, those receiving higher grades reported listening to the radio 26.9 hours per week, and respondents receiving lower grades reported listening 19.9 hours per week. There was no significant difference found between respondents receiving higher grades and those receiving lower grades in either group of young men (Figure 3.6).

**Employment Status.** Figure 3.7 displays the amount of radio listening per week by employment status for the YATS population. Those employed full time listened to the radio significantly more (31.6 hours) than did any of the other employment groups: part-time employed (22.7 hours, p=.03), not employed/looking (22.0 hours, p=.02), and not employed/not looking (21.4 hours, p=.00).

## Figure 3.6 Number of Hours Spent Listening to the Radio Each Week, by School Status and School Grades




Note. Sample size less than 25 for school status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

### 2. Program Preference

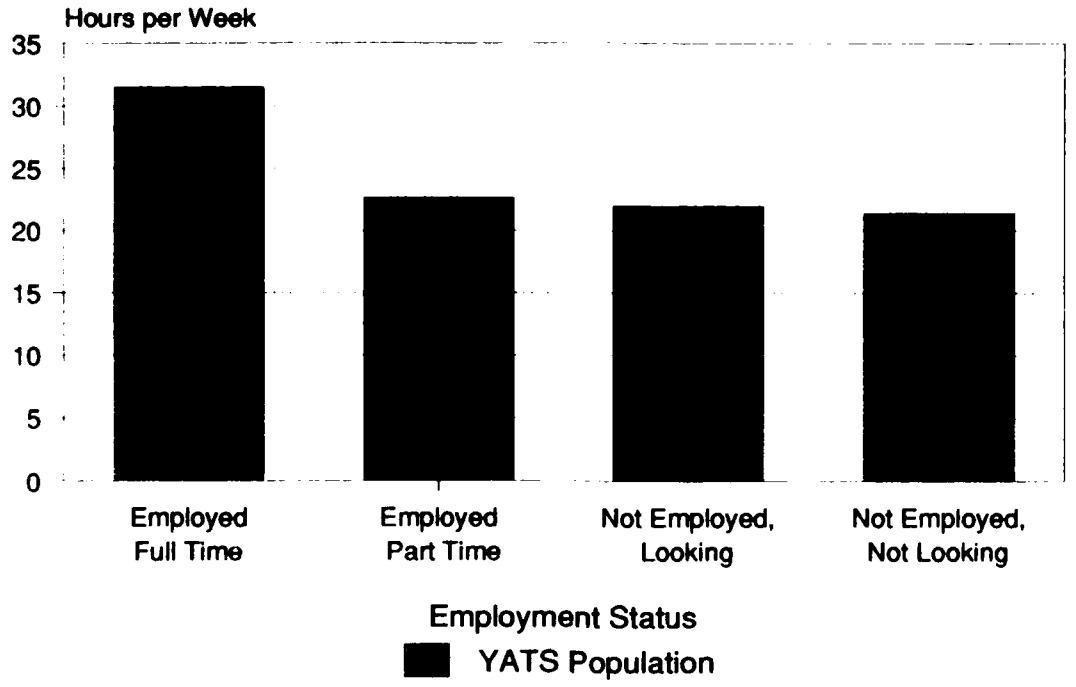
Respondents were asked what types of radio programming they preferred, such as rock and roll, classical, and country. Results are shown in Figure 3.8. As expected for both populations, rock dominated the responses. Among the YATS population, the preferred programming categories were:

- Hard rock, 28.6%,
- Soft rock, 26.5%, and
- Classic rock, 23.2%.

Among the enlistment interest group, young men reported listening to the following radio programming:

- Soft rock, 29.9%,
- Hard rock, 25.8%, and
- Classic rock, 17.5%.

## Figure 3.7 Number of Hours Spent Listening to the Radio Each Week, by Employment Status



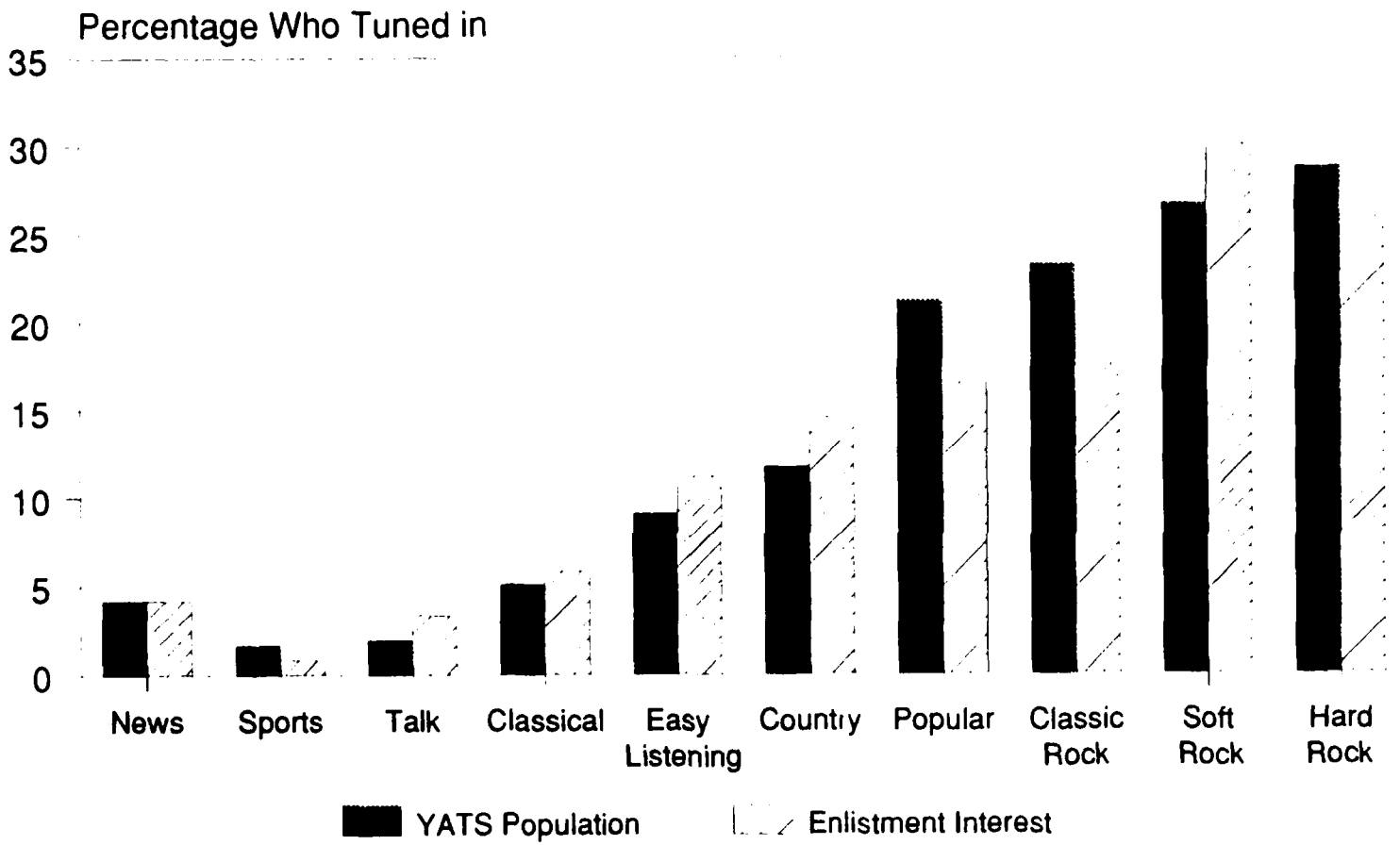

Note. Sample size less than 25 for employment status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

Popular music programming also claimed reasonably high percentages of listeners: 21.1% among the total YATS population and 16.5% among those who expressed enlistment interest. Country music received favorable ratings as well, particularly among the enlistment interest respondents (14.5%). Easy listening stations captured a reported 11.2% of the enlistment interest group and 9.0% of the YATS population.

Classical music (5.1% among the YATS group, 5.8% among the enlistment interest group), news (4.2% for both groups), talk shows (1.9%, 3.3%), and sports (1.7%, 0.8%) were listened to by the fewest number of respondents. Somewhat surprising was that sports programs received the lowest rating of all the categories. These low percentages might be explained by the fact that television sports programs were rated high by young men, indicating a preference for television coverage.

**Figure 3.8 Percentage Who Tuned in to Different Types of Radio Programming**



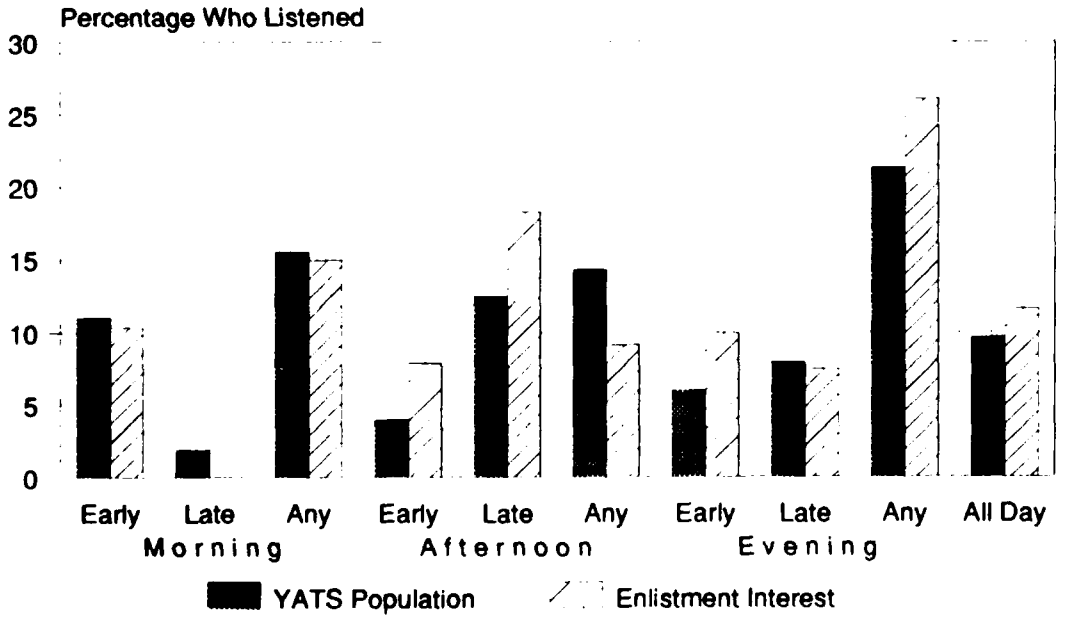

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

### 3. Listening Periods

In addition to the types of programs they preferred, respondents were asked to list the time of day they listened to the radio. Figure 3.9 illustrates these percentages. Overall, it appears that nighttime ("any evening") listening was the most common time period (roughly 7 pm to midnight) for both the total YATS population and the enlistment interest group (21.3% and 26.0%, respectively). "Any morning" was also relatively popular among both groups of young men (15.5% for the YATS population, 15.0% for the enlistment interest group). The total YATS population claimed a 14.3% listening audience in the "any afternoon" time slot, while 18.3% of the enlistment interest respondents reported listening in the "late afternoon."

"Late morning" and "early afternoon" had the fewest reported listeners. Among the YATS population, 1.9% reported listening in the late morning and 3.9% in the early afternoon; among the enlistment interest group, those percentages were 0% and 7.9%, respectively.

**Figure 3.9 Percentage Who Listened to the Radio at Various Times of Day**




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

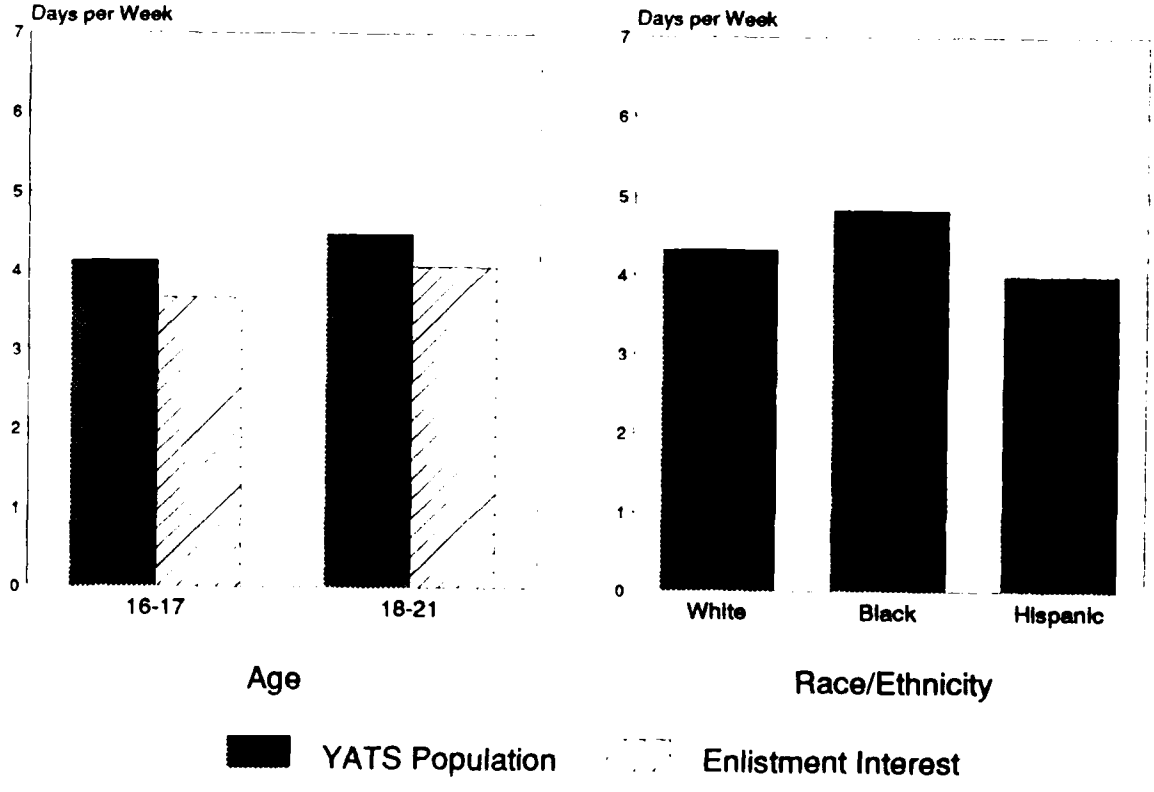
## C. Newspapers

The frequency of newspaper reading by young men, and the sections of the paper they reported reading, is discussed below. For the frequency of use data, sample sizes in the enlistment interest population were large enough for analyses only in the age and school grades categories.

### 1. Days Read, by Demographics

**Age.** Overall, the respondents reported reading the newspaper about four days per week (Figure 3.10). There were no significant differences found between younger (16- to 17-year-olds) and older (18- to 21-year-olds) groups for either the total

**Figure 3.10 Number of Days the Newspaper Was Read Each Week, by Age and Race/Ethnicity**




Note. Sample size less than 25 for race/ethnicity groups with enlistment interest; therefore, estimates not reliable.

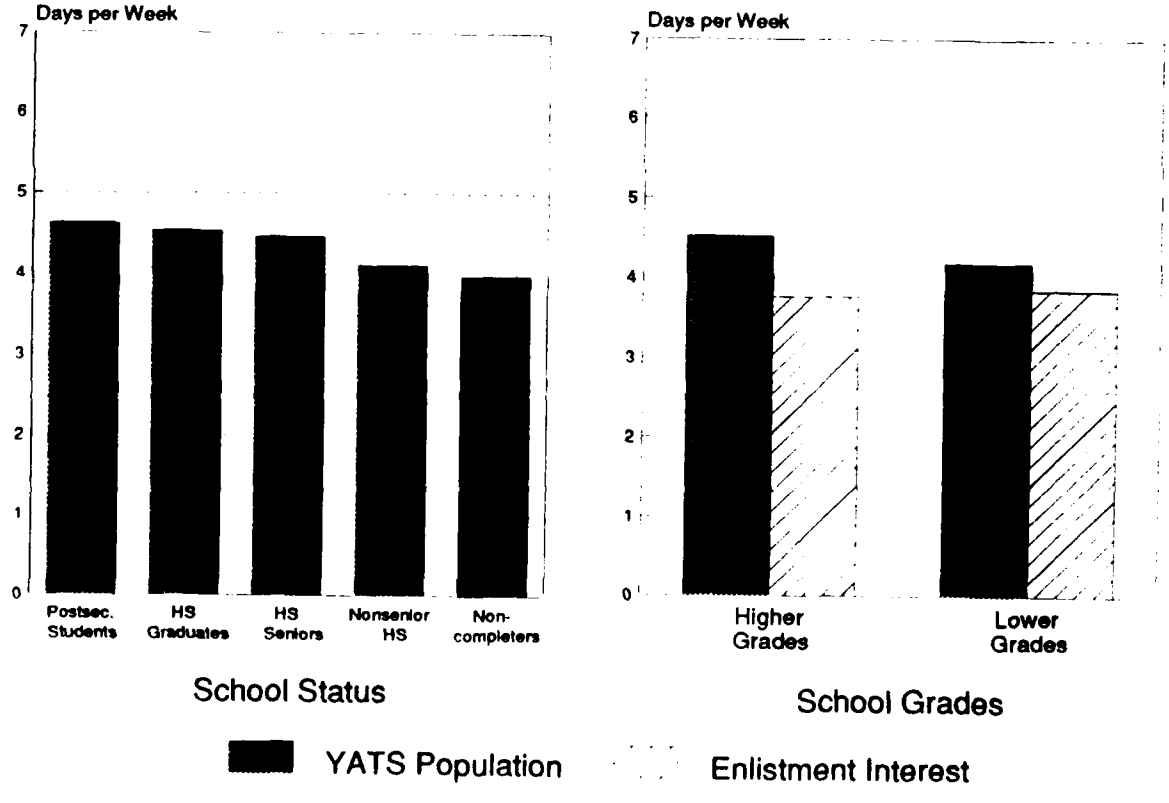
Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

YATS population or the enlistment interest group. Older respondents reported that they read the paper 4.5 days per week for the YATS population and 4.1 days per week for those with enlistment interest. Younger respondents read the newspaper an average of 4.1 days per week for the YATS population and 3.7 days per week for the enlistment interest group.

**Race/Ethnicity.** There were no significant differences in newspaper reading levels among the three race/ethnicity groups (Figure 3.10). The data reported by the young men in the YATS population indicated that Blacks read the newspaper 4.8 days per week, Whites 4.3 days per week, and Hispanics 4.0 days per week.

**School Status.** The data again illustrate a fairly consistent reading pattern of newspapers across all categories (Figure 3.11); no significant differences were found in the analyses.

## Figure 3.11 Number of Days the Newspaper Was Read Each Week, by School Status and School Grades



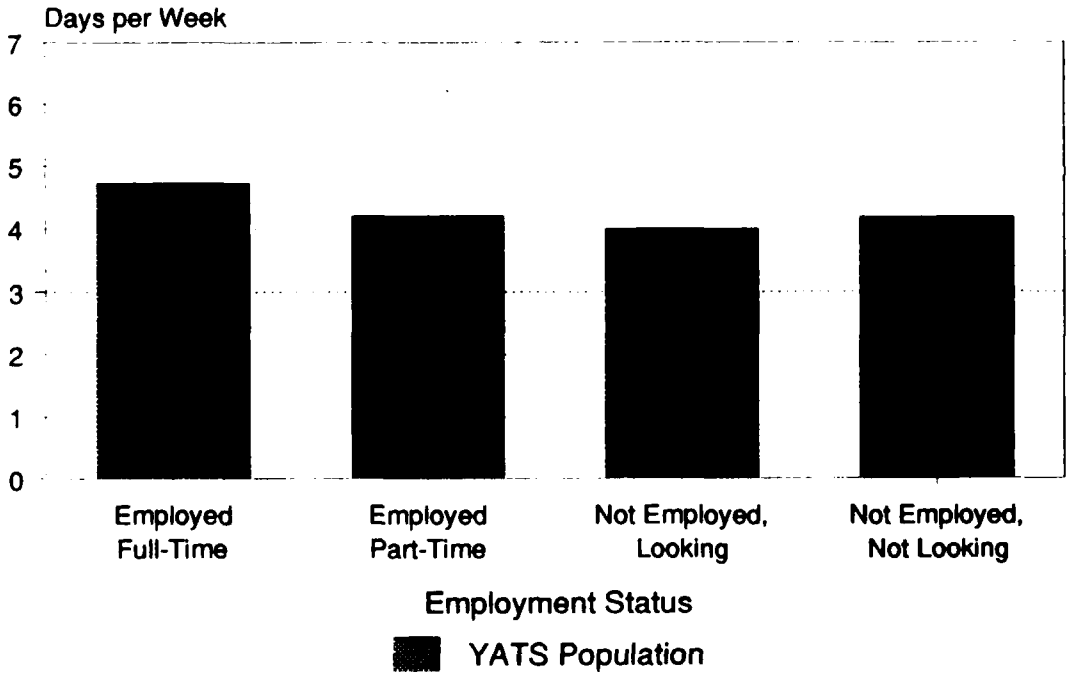

Note. Sample size less than 25 for school status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire tudy.

**School Grades.** There was no statistically significant difference in newspaper reading levels between respondents with higher grades (4.5 days per week) and respondents with lower grades (4.2 days per week) among the YATS population (Figure 3.11). This was also the case in the enlistment interest group (3.8 days per week for both categories).

**Employment Status.** There were no significant differences in newspaper reading levels among the four employment status categories (Figure 3.12). Among the total YATS population, young men employed full time reported reading the newspaper 4.7 days per week, those employed part time 4.2 days per week, not employed/looking respondents 4.0 days per week, and young men not employed/not looking 4.2 days per week.

## Figure 3.12 Number of Days the Newspaper Was Read Each Week, by Employment Status




Note. Sample size less than 25 for employment status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

### 2. Sections Read

For newspapers, the sports section was the overwhelming favorite among both the YATS population (57.7%) and the enlistment interest group (55.5%) (Figure 3.13). The front page was the second most popular section read (45.0% YATS population, 34.5% enlistment interest), followed by local and state news (24.9%, 25.3%), comics (24.7%, 22.0%), and the classifieds (21.1%, 22.0%). As a rule, however, the front page of newspapers does not include advertising, so that finding may not be relevant to this report. There were no statistically significant differences between the total YATS population and the enlistment interest group in this analysis. A trend was evident for more front page reading by the YATS population than by the enlistment interest group.

The lifestyle and business sections claimed less than 10% readership for both groups, and the travel and food sections were under 5%.

## D. Magazines

The growth of the magazine industry may in part be due to its popularity with youths. Although newspaper reading seems to be on the decline, magazines could become the reading source of choice for young men. In fact, YATS/AQS data do show that roughly three fourths of young men aged 16 to 21 do read magazines.

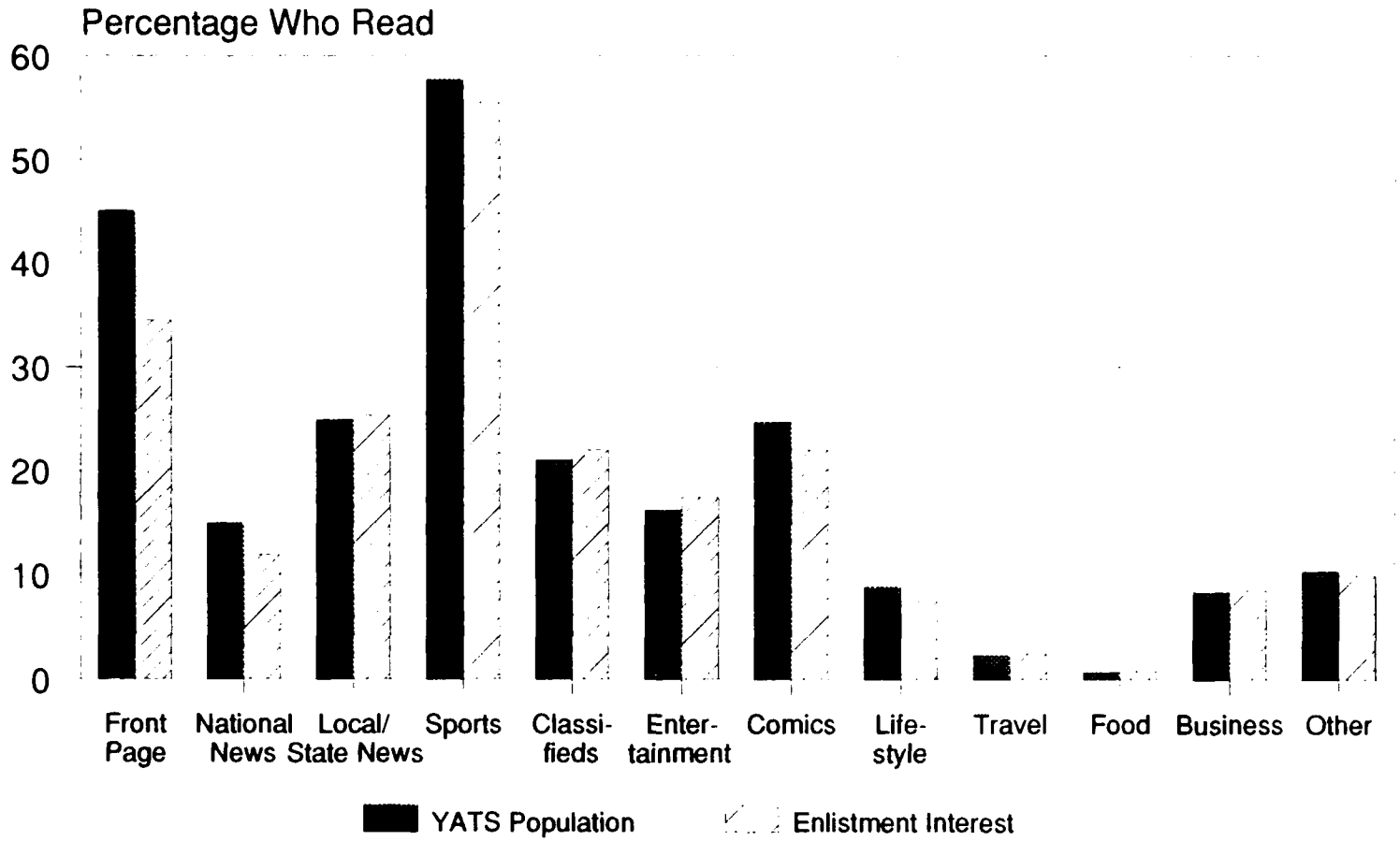
The data reported here for magazines differ from that for other media in that the variable of interest is percentage who read, rather than amount read over a period of time. The question used to measure this was designed chiefly to estimate the proportion of the YATS population who do make use of magazines; such information should assist decisionmakers in understanding the importance of magazines to the YATS population for future advertising planning.

As was the case with the other three media examined in this report, the sample size for the enlistment interest group was large enough for meaningful analysis only in the age and school grades measures.

### 1. Age

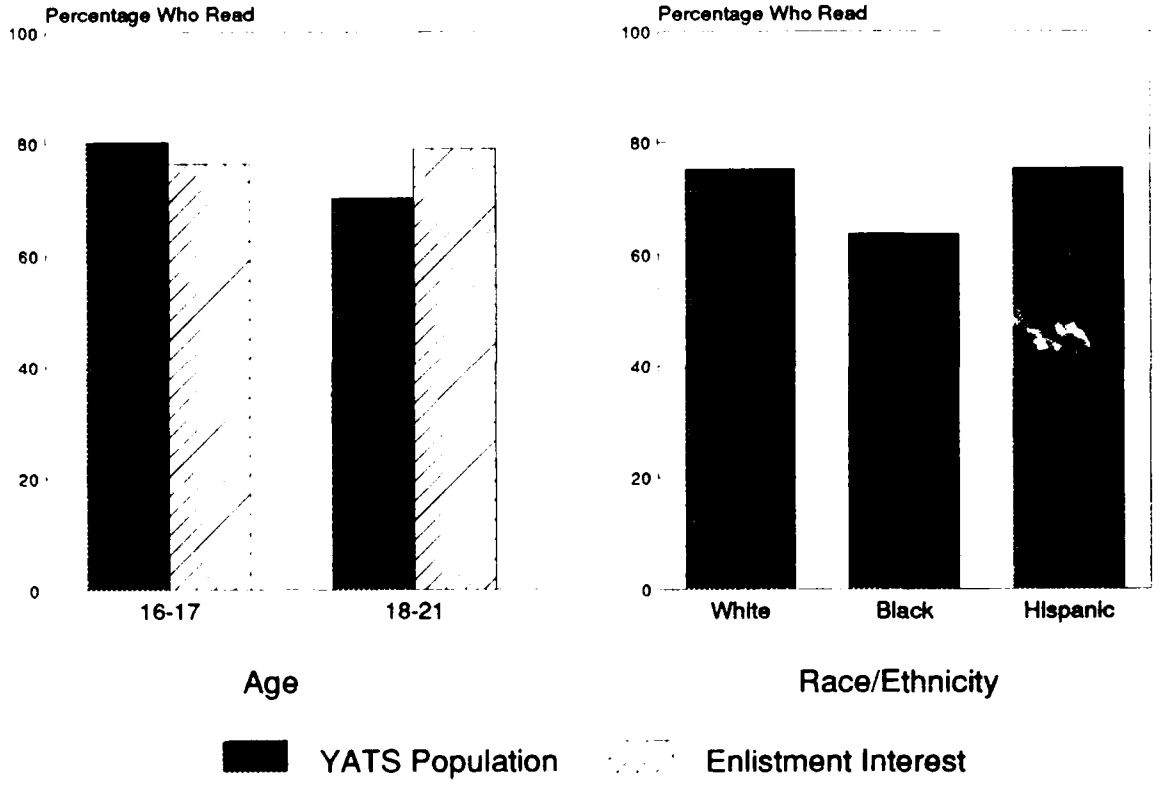
The percentage of respondents who read magazines by age is presented in Figure 3.14. A large percentage of both age groups indicated that they read magazines. Among the YATS population, significantly more 16- to 17-year-olds (80.1%) reported reading magazines than did 18- to 21-year-olds (70.2%, p=.04). There was no significant difference between the two age groups for the enlistment interest group (76.2% for younger men, 78.8% for older men).

**Figure 3.13 Percentage Who Reported Reading Various Sections of the Newspaper**




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Figure 3.14 Percentage Who Read Magazines, by Age and Race/Ethnicity




Note. Sample size less than 25 for race/ethnicity groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

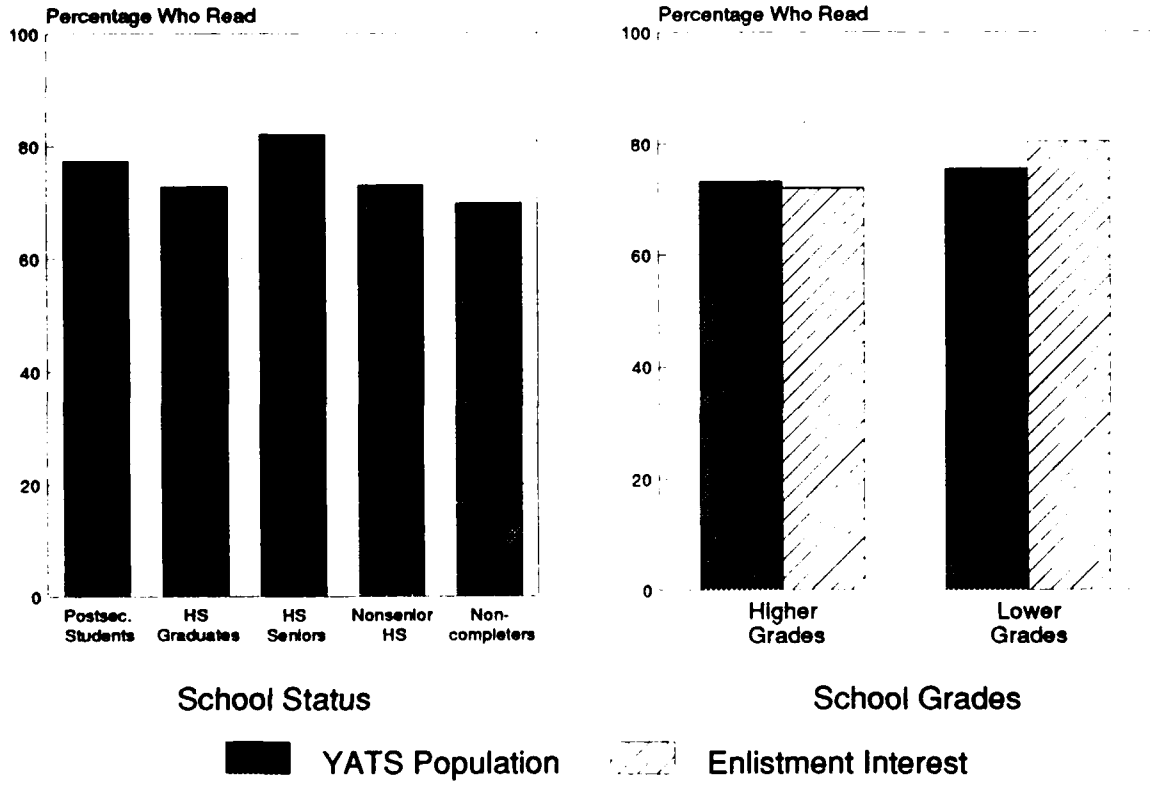
### 2. Race/Ethnicity

There were no statistically significant differences among the three race/ethnicity groups in magazine readership. Among the YATS population, Hispanics reported a 75.3% readership, whites 75.2%, and Blacks 64.0% (Figure 3.14).

### 3. School Status

Figure 3.15 provides magazine reading levels by school status. No statistically significant differences were found among the various school status categories despite the variation shown in the figure. Among the total YATS population, 82.2% of high

## Figure 3.15 Percentage Who Read Magazines, by School Status and School Grades




Note. Sample size less than 25 for school status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

school seniors reported reading magazines, and approximately 75% of the other in-school respondents claimed magazine readership as well. Noncompleters reported the lowest readership level (69.8%).

### 4. School Grades

There was virtually no difference in magazine readership between the two school grade groups among both populations (Figure 3.15).

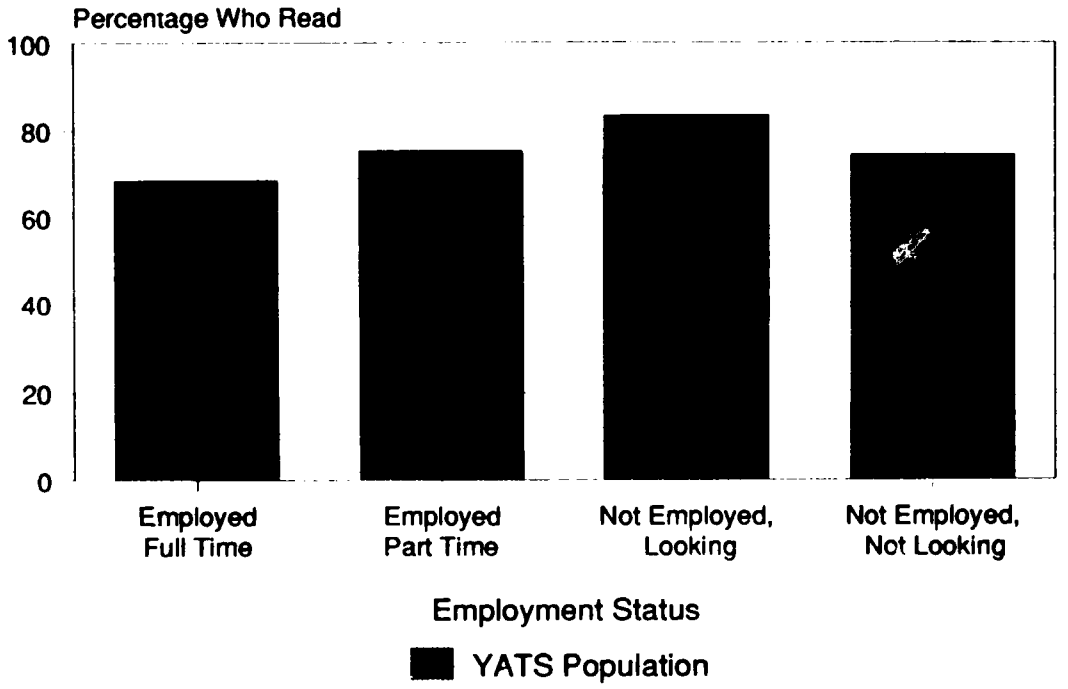
### 5. Employment Status

Figure 3.16 shows magazine readership by employment status. One statistically significant difference was found among the YATS population: 83.3% of the not employed/looking respondents reported reading magazines compared to 68.4% of full-time employed young men (p=.03). Of young men employed part time, 75.3% read magazines; of those not employed and not looking, 74.2% reported that they read magazines.

## E. Advertising Awareness and Targeting of Recruiting by Media

The popular media are an important advertising avenue for the Military. To use the media most effectively, however, requires knowledge of the attitudes and practices of youths regarding various media. Part of that knowledge base should include the levels of military advertising awareness young men have in relation to popular media.

**Figure 3.16 Percentage Who Read Magazines, by Employment Status**




Note. Sample size less than 25 for employment status groups with enlistment interest; therefore, estimates not reliable.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

The levels of military advertising awareness of the 1989 YATS/AQS population, by media category, are discussed in this section.

This section also presents findings of military advertising awareness among those respondents who expressed enlistment interest and those who reported receiving higher grades. These two groups are of special interest for military advertising strategy because they represent attractive recruitment groups: those with higher aptitude and/or those interested in enlisting in the Military. These two categories are not mutually exclusive, but as separate variables they provided insightful and useful data on advertising recall and media use.

## 1. Media Use and Advertising Awareness

Table 3.1 provides the correlation of the 1989 YATS/AQS population's media choice with advertising awareness. Essentially, these data demonstrate whether those who use more of a particular media are apt to report having seen or heard military advertisements on that media. Although it has been commonly held that higher levels of media use should correspond to greater levels of advertising awareness, that was not the case in this study. Only two media types demonstrated a statistically significant relationship with advertising awareness (radio, p=.01; magazines, p=.04), and all correlation coefficients were very small.

**Table 3.1 Advertising Recall as a Function of Media Use**

| Media type | Coefficient | p-value |
|---|---|---|
| Television | -.021 | .64 |
| Radio | .135 | .01 |
| Newspapers | -.047 | .35 |
| Magazines | .095 | .04 |

Note. Coefficients are Pearson correlation coefficients indicating the degree to which higher levels of use of a media correspond to reported advertising recall from that media. P-values less than .05 are considered to be statistically significant.

Source: 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

This finding is interesting especially in light of the belief that television generally will impact upon more senses and thereby trigger more recall of advertisements than

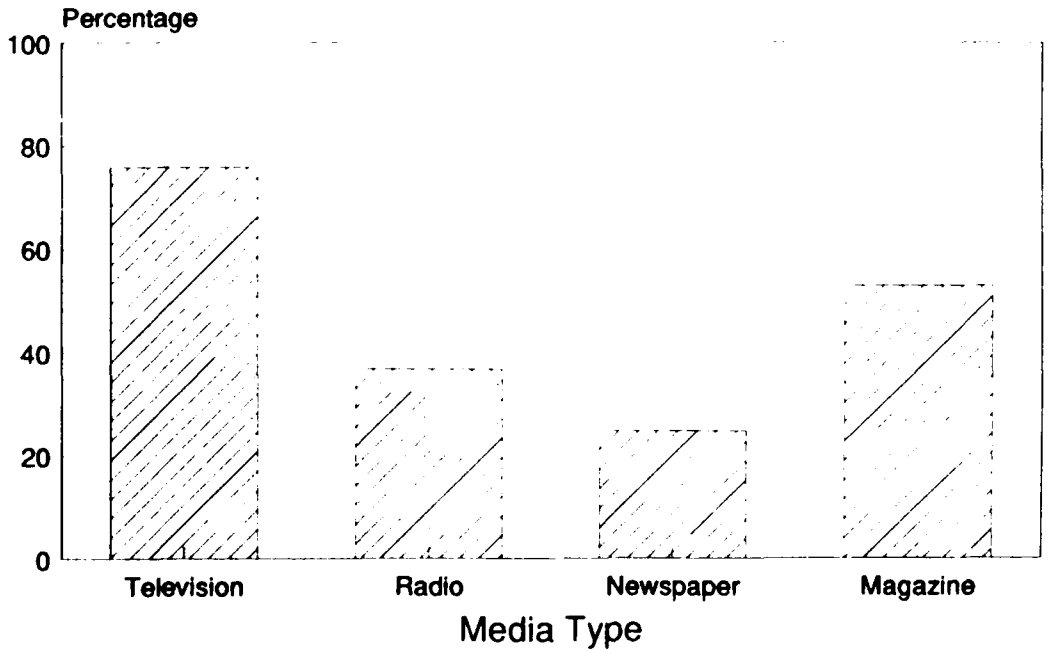
other media. It should be kept in mind, however, that a one-dimensional analysis of advertising awareness may not, in fact, be capturing the full effect of advertising. Indeed, several advertising strategies may be used to reinforce each other--as would be the case with a television spot being followed by several radio spots that echo the television message. Future studies may be able to assess this effect in greater depth.

Furthermore, data on recall of messages showed good awareness of military advertising for both television (80.8%) and magazines (53.3%), but less awareness for radio (32.0%) and newspapers (18.9%). Thus, in light of the above correlations, it is conceivable that military advertising is already appropriately targeted both *when* and *where* it is likely to be seen or heard. Therefore, differences in advertising recall would not be expected to vary much by the amount of, for instance, television watched.

## 2. Targeting Young Men with Enlistment Interest

Advertising awareness for the four media of respondents with a high enlistment interest is shown in Figure 3.17. Most reported having seen military advertising on television (75.9%) or in magazines (53.0%). These results tend to

**Figure 3.17 Advertising Awareness, by Media Type, of Young Men with Enlistment Interest**




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

corroborate the notion that, at least in the case of television and magazines, advertising may already be reaching those for whom it is targeted.

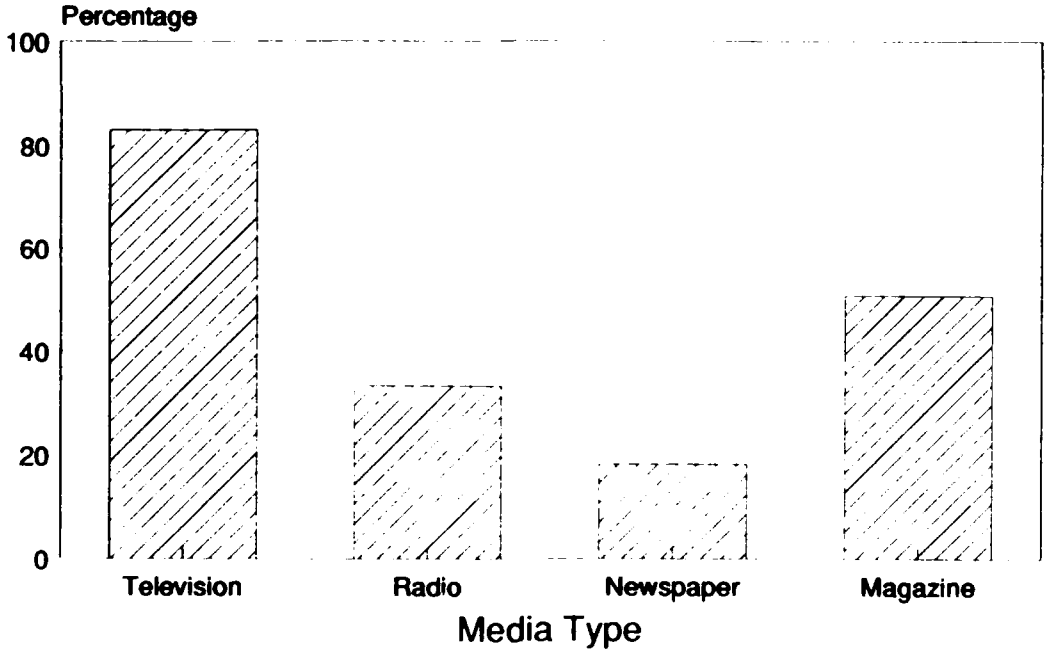
The percentage of young men with enlistment interest who reported hearing advertisements on the radio (36.8%) and seeing it in newspapers (24.8%) were both significantly lower than the percentages reported above for television and magazines.

### 3. Targeting Young Men with Higher Grades

Figure 3.18 shows the advertising awareness, by media, for respondents who reported receiving higher grades in high school. The results of this analysis, similar to that for Figure 3.17, indicate that most of those receiving higher grades reported seeing military advertisements on television (83.1%) and in magazines (50.8%). Again, radio and newspapers were mentioned by significantly fewer of this group (33.3% for radio and 18.3% for newspapers).

Findings of this analysis for men with higher grades are interesting in light of a similar analysis performed for the 1988 YATS II *Military Advertising Exposure and Service Images* report (Bray et al., 1989a). In that report, youths predicted to have higher aptitude were found to be more apt to recall military advertisements (both print and broadcast) and more accurate in identifying the sponsors of such advertising than were youths with lower predicted aptitude. Although we cannot be certain that higher grades correspond perfectly with higher predicted aptitude, we can still conclude that television and magazines are efficient tools for reaching a targeted desirable population.

## Figure 3.18 Advertising Awareness, by Media Type, of Young Men with Higher School Grades




Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

# 4. SUMMARY AND DISCUSSION

This report describes media use patterns of young men aged 16 to 21 for four media: television, radio, newspapers, and magazines. Data were obtained from the 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study (YATS/AQS), a 20-minute computer-assisted telephone survey with 476 men aged 16 to 21. It was designed to gather information regarding different aspects of youths' backgrounds, interests, attitudes, and behaviors than was possible in the main 1989 YATS survey. Findings suggest how and when to reach the most capable and dedicated young men available for recruitment with media advertising. More specifically, this study examines what media might be targeted to reach those with enlistment interest, as well as those who have higher aptitude.

This chapter summarizes and highlights the main findings of media use from the YATS/AQS. It begins by discussing key measures and YATS population characteristics. This is followed by highlights of media use patterns and the findings and conclusions about targeting recruiting by media.

## A. 1989 YATS/AQS: Key Measures and Population Characteristics

### 1. Key Measures

A key measure for this study was the self-reported likelihood that young men will enlist in the military in the next few years. This likelihood is referred to as enlistment interest and is similar to the measure of propensity used in previous YATS reports. The subpopulation of young men with enlistment interest was used for comparative analysis whenever the sample size was large enough.

Sociodemographic variables such as age, race/ethnicity, school status, and employment status were used to examine and classify media use patterns. One sociodemographic measure, school grades, was used as a substitute for the previous YATS indicator of aptitude. Respondents' self-reports of high school grades were used to categorize young men into two groups: those with higher grades and those with lower grades.

Advertising awareness, a measure of advertising recall, was also a key measure specific to this report. Advertising awareness was examined among those with enlistment interest and those with higher school grades. Advertising recall was also examined as a function of media use.

### 2. Population Characteristics

The 1989 YATS/AQS estimates were based on interviews with 476 young men aged 16 to 21. From these interviews, it was estimated that in the YATS

population 55.5% (roughly half) of young men were 18- to 21-year-olds, while the remaining 44.5% were 16- 17-year-olds. For the race/ethnicity characteristic, 71.0% were white, 13.0% were Black, 11.4% were Hispanic, and 4.6% were "other." The latter group was omitted from analyses that classified media use by racial/ethnic groups because it was too small to provide reliable estimates.

Nearly half (47.1%) of the YATS population were estimated to be in high school, and 41.1% were estimated to have higher grades. The majority were employed: 26.0% full time and 29.0% part time.

## B. Media Use Patterns

This study examined the media use patterns of young men for television, radio, newspapers, and magazines. This section describes the key findings for those media.

### 1. Television

Television viewing time was significantly higher for younger men than for older men. Among the total YATS population, television was watched an average of 16.0 hours per week by 16- to 17-year-olds compared to 11.6 hours per week for 18- to 21-year-olds. Significant differences were also found in viewing time among racial/ethnic groups. Blacks watched significantly more television each week (22.7 hours) than did Hispanics (14.1 hours) or whites (13.0 hours). Finally, for the YATS population, those employed full time watched significantly less television per week (11.4 hours) than did those who were not employed and not looking (17.0 hours).

Within the television media, comedy was the most popular programming among all young men. Sports, mysteries/adventures, and news also were popular program choices. Movies were cited by a significant number of young men, but some of that popularity could be attributed to noncommercial, pay programming stations (e.g., Home Box Office) and VCR rentals. A somewhat surprising finding was the low popularity of music programming, which included the MTV channel.

The data suggest the following conclusions:

- Television advertising will reach more 16- to 17-year-olds, Blacks, and not employed young men than their counterparts.
- Comedy, sports, and mysteries/adventures are the most popular programming types in which to place military advertisements to reach all young men.

### 2. Radio

Radio listening levels were significantly higher ($p=.05$) for men who were older than for those who were younger. Those aged 18 to 21 listened to the radio an

average of 28.6 hours per week, whereas those aged 16 to 17 listened an average of 21.6 hours per week. These findings were the reverse of those observed for television viewing.

Significant differences were also found for school groups. High school graduates reported listening to the radio significantly more (33.3 hours per week) than did nonsenior high school students (20.0 hours, p=.00), postsecondary students (23.2 hours, p=.01), or noncompleters (23.6 hours, p=.01)). In addition, radio was listened to significantly more by men employed full time in the total YATS population (31.6 hours per week) than by those in other employment statuses (about 22 hours per week).

Rock and roll music was the overwhelming programming preference among all respondents, although there were differences in the type of rock music that was preferred. The total YATS population favored "hard" rock programming over "soft" rock, while the opposite was true for those who expressed enlistment interest.

Men aged 16 to 21 were most likely to listen to the radio during the early morning and late at night. Among the total YATS population, 21.3% reported listening to the radio at night, and 15.5% listened during the morning. Similarly, among the enlistment interest group, 26.0% reported that they listened at night, and 15.0% indicated that they listened in the morning.

The following conclusions can be extrapolated from these data:

- Radio advertising appears to be a more effective media for reaching 18- to 21-year olds than 16- to 17-year-olds; high school graduates than other school status groups; and those who are employed full time compared to other employment status groups.
- Radio advertising is more likely to be heard on rock and roll programming stations, particularly those that specialize in "hard" and "soft" rock music, than on stations with other types of programming.
- Radio advertising for the military should include broadcasts late at night (for instance, 9 pm to midnight) and in the early morning (for instance, 7 am to 9 am) hours because these are the most popular times for radio listening among 16- to 21-year-olds.

### 3. Newspapers

On average, men aged 16 to 21 read newspapers about 4 days per week. There were no significant differences in reading patterns among sociodemographic groups or for those in the YATS population and those with enlistment interest. Data were not available about the type or quality of newspapers that were read or about the time spent reading them.

Sports was the most popular section of the newspaper among all respondents (57.7% for the YATS population, 55.5% for the enlistment interest group), followed by the front page (45.0%, 34.5%, respectively), comics (25.0%, 22.0%), and local/state news (24.9%, 25.3%).

The data from this analysis suggest that:

- Newspaper advertising is equally likely to reach individuals within all sociodemographic groups.
- The most effective section of the newspaper to place military advertising is the sports section because it is most often read by 16- to 21-year-old men.

### 4. Magazines

Roughly 75% of all young men read magazines. Among the YATS population, 16- to 17-year-olds were significantly more likely to read magazines (80.1%) than were 18- to 21-year-olds (70.2%), although percentages for both groups were high. Respondents seeking employment also claimed high magazine readership among the total YATS population (83.3%). A significantly lower percentage was reported for full-time employees in the YATS population (68.4%) relative to those who were seeking employment.

The following conclusions are suggested from these data:

- Military advertising in magazines appears likely to reach a large proportion of 16- to 21-year-old men because magazines are very popular regardless of sociodemographic background.
- Magazine advertising is more likely to be effective in reaching men aged 16 to 17 than men aged 18 to 21; and men aged 16 to 21 who are not employed but looking for work than men in other employment groups.

## C. Advertising Awareness and Targeting of Recruiting by Media

Understanding the relationship of advertising awareness and media use is important in developing advertising strategies. Conventional wisdom suggests that higher levels of media use should be reflected in greater advertising awareness. If correct, a positive correlation should be observed between media use and advertising awareness. Results showed small correlations (.15 or less), which indicate weak relationships between the awareness of advertising and the use of media. Data on recall of messages however, showed good awareness of military advertising for television (80.8%) and magazines (53.3%), but less awareness for radio (32.0%) and newspapers (18.9%). Thus, at least for television and magazines, the amount of media exposure does not account for high advertising awareness.

Among young men who expressed enlistment interest, the majority reported that they were exposed to military advertisements on television (75.9%) and in magazines (53.0%). Radio (36.8%) and newspapers (24.8%) had lower exposure rates.

Similar findings were reported among young men who received higher grades (a substitute in this report for higher aptitude). A total of 83.1% reported seeing military advertisements on television, and 50.8% saw them in magazines. Fewer heard advertisements on the radio (33.3%) or saw them in newspapers (18.3%).

The data from this analysis suggest the following conclusions:

- Awareness of military advertising can be high even though it is not associated with high amounts of media exposure.
- High recall rates for military advertisements on television and in magazines indicate that at least part of the advertising message about the military is reaching young men.
- Military advertisements on television and in magazines will reach a majority of the YATS population.

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# APPENDIX A

## *METHODOLOGY AND MEASUREMENT APPROACH*

# APPENDIX A

# METHODOLOGY AND MEASUREMENT APPROACH

This appendix briefly describes the methodology for the 1989 YATS/AQS. The discussion of methods includes the sampling design and data collection procedures.

## A. Sampling Design

The 1989 YATS/AQS was designed to obtain information from a single market group likely to enlist in the military: young men aged 16 to 21. To be eligible for inclusion in this study, individuals had to reside in the continental United States in households or noninstitutional group quarters with telephones. This criterion included traditional households of close relatives and households of up to 10 unrelated individuals living together who shared the same phone (e.g., roommates in an apartment). Students in college dormitories were included if they had private phones in their rooms, but they were excluded if they were served only by a central hall phone. Eligible individuals could have completed no more than 2 years of college. Military personnel, including those in the Delayed Entry Program and those with prior military service (other than high school ROTC), were excluded.

As specified by the DoD, the sample was designed to yield national-level estimates, with the sample size selected to yield 400 unique interviews. The sampling design was based on the Waksberg random-digit-dialing procedure (Waksberg, 1978). Under this procedure, telephone numbers are called in two stages to identify households. First-stage calls are made to randomly selected telephone exchanges. Exchanges yielding a household on the first number called are designated as clusters. In the second stage, numbers within these clusters are generated to find additional households. This approach is efficient because many exchanges have disproportionately high percentages of residential telephone numbers. When the first call to an exchange reaches a household, subsequent calls to the same exchange are more likely to reach households than when the first call to an exchange does not reach a household.

## B. Data Collection

### 1. Survey Questionnaire

Data from the 1989 YATS/AQS consisted of responses to a questionnaire administered in a 20-minute computer-assisted telephone interview (CATI). Although the questionnaire contained some questions from the main questionnaire of the 1989 YATS administrations, many of the items were new or modified.

Section A of the questionnaire contained primarily questions on education and employment. Section B contained items about propensity toward the Military Services. Section C contained a series of media habit questions. And Section D asked about military advertising awareness, contact with recruiters, and respondent demographics.

## 2. Procedures

A CATI system was used for all phases of data collection. With this system, questionnaires for screening (eligibility determination), interviewing, and verification are programmed, entered, and stored by interviews within the computer. Instructions and questionnaire items appear on the screen in the proper sequence. Inconsistent, invalid, and incomplete responses are resolved as an ongoing part of the interview.

Data collection for the 1989 YATS/AQS was conducted from January 2 to January 28, 1990. The goal was to complete 400 interviews with 16- to 21-year-old young men.

A total of 14,474 telephone numbers were called, and 6,496 households were identified. Household screenings determined that 490 of those households contained one or more eligible sample members. Interviews were completed with 476 young males.

## 3. Performance Rates

A thorough effort was made to obtain high response rates with the time allowed for data collection. Numerous calls were made to complete household screening for identified households and to administer a questionnaire to all eligibles.

The household screening rate for the 1989 YATS/AQS was 98.3%, and the interview completion rate was 79.7%, resulting in an overall response rate of 78.4%.

# APPENDIX B
# DATA SUMMARY TABLES

## Table B.1 Sociodemographic Characteristics of the YATS/AQS Population

| Characteristic | Count | Percent |
|---|---|---|
| Age | | |
| 16-17 | 3,072 | 44.5 (3.0) |
| 18-21 | 3,834 | 55.5 (3.0) |
| Race | | |
| White | 4,900 | 71.0 (2.9) |
| Black | 900 | 13.0 (2.2) |
| Hispanic | 788 | 11.4 (2.2) |
| Other | 319 | 4.6 (1.2) |
| School status[a] | | |
| Postsecondary student | 1,167 | 16.9 (2.9) |
| High school graduate | 1,400 | 20.3 (2.4) |
| High school senior | 1,032 | 14.9 (2.0) |
| Nonsenior high school student | 2,227 | 32.2 (2.7) |
| Noncompleter | 1,081 | 15.7 (2.1) |
| Employment status | | |
| Employed full time | 1,773 | 26.0 (2.5) |
| Employed part time | 1,981 | 29.0 (2.8) |
| Not employed, looking | 964 | 14.1 (1.9) |
| Not employed, not looking | 2,110 | 30.9 (3.0) |
| Grades | | |
| High grades | 2,841 | 41.1 (2.8) |
| Low grades | 4,065 | 58.9 (2.8) |

Note. Population counts are in thousands. Estimates are based on some variables for which there may be missing information. Standard errors are in parentheses.

[a]Postsecondary students are high school graduates currently attending college or a business/vocational school. High school graduates are respondents who are not students and have graduated from high school. Noncompleters are respondents who are not high school students and have not graduated from high school.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.2 Number of Hours Spent Watching Television Each Week[a]

| Characteristic | Hours per week | | | |
|---|---|---|---|---|
| | YATS population | | Enlistment interest | |
| Age | | | | |
| 16-17 | 15.7 | (1.3) | 16.0 | (1.7) |
| 18-21 | 13.2 | (0.9) | 11.6 | (1.5) |
| Race | | | | |
| White | 13.0 | (0.8) | 13.1 | (1.5) |
| Black | 22.7 | (3.1) | -- | -- |
| Hispanic | 14.1 | (2.0) | -- | -- |
| Other | -- | -- | -- | -- |
| School status[b] | | | | |
| Postsecondary student | 13.3 | (1.8) | -- | -- |
| High school graduate | 13.3 | (1.6) | -- | -- |
| High school senior | 12.7 | (1.3) | -- | -- |
| Nonsenior high school student | 16.5 | (1.6) | 16.3 | (1.9) |
| Noncompleter | 13.9 | (1.4) | -- | -- |
| Grades | | | | |
| High grades | 13.7 | (1.2) | 13.2 | (1.7) |
| Low grades | 14.8 | (1.0) | 15.2 | (1.7) |
| Employment status | | | | |
| Employed full time | 11.4 | (1.1) | -- | -- |
| Employed part time | 13.9 | (1.5) | 13.3 | (2.2) |
| Not employed, looking | 15.3 | (1.8) | -- | -- |
| Not employed, not looking | 17.0 | (1.7) | 16.5 | (2.6) |

Note. Standard errors are in parentheses.

-- Sample size less than 25; estimate not reliable.

[a]Information in this table is graphically shown in Figures 3.1, 3.2, and 3.3.

[b]Postsecondary students are high school graduates currently attending college or a business/vocational school. High school graduates are respondents who are not students and have graduated from high school. Noncompleters are respondents who are not high school students and have not graduated from high school.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.3 Percentage Who Reported Watching Various Types of Television Programs[a]

| Program | Percentage who watched | |
|---|---|---|
| | YATS population | Enlistment interest |
| Situation comedies | 15.4 (2.0) | 15.4 (3.0) |
| Mysteries/adventures | 13.0 (1.9) | 17.0 (3.4) |
| Game shows | 1.2 (.5) | .8 (.8) |
| Soap operas | 2.0 (.7) | 1.7 (1.2) |
| News | 13.2 (1.7) | 10.8 (3.4) |
| Movies | 19.2 (2.1) | 22.9 (4.2) |
| Sports | 23.4 (2.5) | 24.0 (4.5) |
| Music | 5.2 (1.1) | 4.6 (1.9) |
| Documentaries | 2.1 (.7) | 3.3 (1.6) |
| Talk shows | 1.4 (.5) | .8 (.8) |
| Comedies | 25.2 (2.2) | 27.3 (4.4) |
| VCR | 2.3 (.8) | 2.5 (1.8) |
| Family/drama | 3.6 (1.0) | 5.0 (2.3) |
| Other | 9.9 (1.6) | 12.0 (3.2) |

Note. Standard errors are in parentheses.

[a]Information in this table is graphically shown in Figure 3.4.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.4 Number of Hours Spent Each Week Listening to the Radio[a]

| Characteristic | Hours per week | | | |
|---|---|---|---|---|
| | YATS population | | Enlistment interest | |
| Age | | | | |
| 16-17 | 21.6 | (2.1) | 21.1 | (3.2) |
| 18-21 | 26.8 | (1.7) | 25.1 | (3.5) |
| Race | | | | |
| White | 24.0 | (1.4) | 21.1 | (2.6) |
| Black | 26.4 | (4.5) | -- | -- |
| Hispanic | 23.6 | (4.5) | -- | -- |
| Other | -- | -- | -- | -- |
| School status[b] | | | | |
| Postsecondary student | 23.2 | (2.9) | -- | -- |
| High school graduate | 33.3 | (2.8) | -- | -- |
| High school senior | 24.7 | (4.7) | -- | -- |
| Nonsenior high school student | 20.0 | (1.9) | 18.3 | (2.6) |
| Noncompleter | 23.6 | (3.0) | -- | -- |
| Grades | | | | |
| High grades | 24.4 | (2.3) | 26.9 | (4.6) |
| Low grades | 24.6 | (1.6) | 19.9 | (2.5) |
| Employment status | | | | |
| Employed full time | 31.6 | (2.7) | -- | -- |
| Employed part time | 22.7 | (2.8) | 21.7 | (4.8) |
| Not employed, looking | 22.0 | (2.8) | -- | -- |
| Not employed, not looking | 21.4 | (1.9) | 21.5 | (3.3) |

Note. Standard errors are in parentheses.

-- Sample size less than 25; estimate not reliable.

[a]Information in this table is graphically shown in Figures 3.5, 3.6, and 3.7.

[b]Postsecondary students are high school graduates currently attending college or a business/vocational school. High school graduates are respondents who are not students and have graduated from high school. Noncompleters are respondents who are not high school students and have not graduated from high school.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.5 Percentage Who Tuned in to Different Types of Radio Programming[a]

| Program | Percentage who tuned in: YATS population | Enlistment interest |
|---|---|---|
| News | 4.2 (1.1) | 4.2 (1.8) |
| Sports | 1.7 (.7) | .8 (.8) |
| Talk shows | 1.9 (.7) | 3.3 (1.6) |
| Classical | 5.1 (1.2) | 5.8 (2.2) |
| Easy listening | 9.0 (1.4) | 11.2 (2.8) |
| Country | 11.7 (1.6) | 14.5 (3.2) |
| Popular | 21.1 (2.2) | 16.5 (3.4) |
| Classic rock | 23.2 (2.4) | 17.5 (3.7) |
| Soft rock | 26.5 (2.5) | 29.9 (4.4) |
| Hard rock | 28.6 (2.5) | 25.8 (4.8) |

Note. Standard errors are in parentheses.

[a]Information in this table is graphically shown in Figure 3.8.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.6 Percentage Who Listened to the Radio at Various Times of Day[a]

| Program | Percentage who listened: YATS population | Enlistment interest |
|---|---|---|
| Early morning | 11.0 (1.6) | 10.4 (3.1) |
| Late morning | 1.9 (.8) | ++ ++ |
| Any morning | 15.5 (2.0) | 15.0 (3.6) |
| Early afternoon | 3.9 (1.1) | 7.9 (2.8) |
| Late afternoon | 12.5 (1.7) | 18.3 (3.8) |
| Any afternoon | 14.3 (1.8) | 9.1 (2.8) |
| Early evening | 6.0 (1.2) | 10.0 (2.7) |
| Late evening | 8.0 (1.5) | 7.5 (2.6) |
| Any evening | 21.3 (2.3) | 26.0 (4.1) |
| All day | 9.7 (1.5) | 11.6 (3.4) |

Note. Standard errors are in parentheses.

++ Estimate rounds to zero; standard error, therefore, cannot be computed.

[a]Information in this table is graphically shown in Figure 3.9.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.7 Number of Days the Newspaper Was Read Each Week[a]

| Characteristic | Days per week | |
|---|---|---|
| | YATS population | Enlistment interest |
| Age | | |
| 16-17 | 4.1 (0.2) | 3.7 (0.3) |
| 18-21 | 4.5 (0.2) | 4.1 (0.5) |
| Race | | |
| White | 4.3 (0.2) | 4.0 (0.4) |
| Black | 4.8 (0.4) | -- -- |
| Hispanic | 4.0 (0.4) | -- -- |
| Other | 3.7 (0.7) | -- -- |
| School status[b] | | |
| Postsecondary student | 4.6 (0.4) | -- -- |
| High school graduate | 4.5 (0.3) | -- -- |
| High school senior | 4.5 (0.4) | -- -- |
| Nonsenior high school student | 4.1 (0.3) | 3.6 (0.4) |
| Noncompleter | 4.0 (0.4) | -- -- |
| Grades | | |
| High grades | 4.5 (0.2) | 3.8 (0.4) |
| Low grades | 4.2 (0.2) | 3.8 (0.4) |
| Employment status | | |
| Employed full time | 4.7 (0.3) | -- -- |
| Employed part time | 4.2 (0.3) | -- --[c] |
| Not employed, looking | 4.0 (0.4) | -- -- |
| Not employed, not looking | 4.2 (0.3) | 3.3 (0.4) |

Note. Standard errors are in parentheses.

-- Sample size less than 25; estimate not reliable.

[a]Information in this table is graphically shown in Figures 3.10, 3.11, and 3.12.

[b]Postsecondary students are high school graduates currently attending college or a business/vocational school. High school graduates are respondents who are not students and have graduated from high school. Noncompleters are respondents who are not high school students and have not graduated from high school.

[c]A sufficient number of cases was not available for this group reporting newspaper use. Sufficient data existed for television and radio use among those employed part time such that data were included in previous tables.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.8 Percentage Who Reported Reading Various Sections of the Newspaper[a]

| Program | Percentage who read | |
|---|---|---|
| | YATS population | Enlistment interest |
| Front page | 45.0 (3.0) | 34.5 (4.7) |
| National news | 15.0 (1.9) | 11.9 (2.9) |
| Local/state news | 24.9 (2.4) | 25.3 (4.1) |
| Sports | 57.7 (2.8) | 55.5 (5.0) |
| Classifieds | 21.1 (2.3) | 22.0 (4.5) |
| Entertainment | 16.2 (2.1) | 17.5 (4.3) |
| Comics | 24.7 (2.2) | 22.0 (4.3) |
| Lifestyle | 8.9 (1.5) | 7.5 (2.6) |
| Travel | 2.3 (.7) | 2.5 (1.4) |
| Food | .7 (.4) | .8 (.8) |
| Business | 8.4 (1.3) | 8.6 (2.5) |
| Other | 10.4 (1.6) | 10.0 (3.0) |

Note. Standard errors are in parentheses.

[a]Information in this table is graphically shown in Figure 3.13.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.9 Percentage Who Read Magazines[a]

| Characteristic | Percentage who read: YATS population | | Percentage who read: Enlistment interest | |
|---|---|---|---|---|
| Age | | | | |
| 16-17 | 80.1 | (3.5) | 76.2 | (6.0) |
| 18-21 | 70.2 | (3.1) | 78.8 | (5.9) |
| Race | | | | |
| White | 75.2 | (2.7) | 75.7 | (5.3) |
| Black | 64.0 | (7.4) | -- | -- |
| Hispanic | 75.3 | (7.0) | 79.6 | (9.7) |
| Other | -- | -- | -- | -- |
| School status[b] | | | | |
| Postsecondary student | 77.3 | (5.0) | -- | -- |
| High school graduate | 72.8 | (5.1) | -- | -- |
| High school senior | 82.2 | (5.2) | -- | -- |
| Nonsenior high school student | 73.1 | (4.5) | 73.5 | (6.7) |
| Noncompleter | 69.8 | (6.5) | -- | -- |
| Grades | | | | |
| High grades | 73.3 | (3.4) | 72.0 | (6.9) |
| Low grades | 75.5 | (3.1) | 80.4 | (5.0) |
| Employment status | | | | |
| Employed full time | 68.4 | (4.9) | -- | -- |
| Employed part time | 75.3 | (4.7) | 65.6 | (10.1) |
| Not employed, looking | 83.3 | (4.9) | -- | -- |
| Not employed, not looking | 74.2 | (4.0) | 79.7 | (6.3) |

Note. Standard errors are in parentheses.

-- Sample size less than 25; estimate not reliable.

[a]Information in this table is graphically shown in Figures 3.14, 3.15, and 3.16.

[b]Postsecondary students are high school graduates currently attending college or a business/vocational school. High school graduates are respondents who are not students and have graduated from high school. Noncompleters are respondents who are not high school students and have not graduated from high school.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.

## Table B.10 Advertising Awareness, by Media Type, for Respondents with Enlistment Interest and Higher Grades[a]

| Program | Percentage with awareness | | | | | |
|---|---|---|---|---|---|---|
| | YATS population | | Enlistment interest | | Higher grades | |
| Television | 80.8 | (2.2) | 75.9 | (4.2) | 83.1 | (2.9) |
| Radio | 32.0 | (2.4) | 36.8 | (4.7) | 33.3 | (4.1) |
| Newspapers | 18.9 | (2.0) | 24.8 | (4.0) | 18.3 | (3.4) |
| Magazines | 53.3 | (2.6) | 53.0 | (4.7) | 50.8 | (4.1) |

Note. Standard errors are in parentheses.

[a]Information in this table is graphically shown in Figures 3.17 and 3.18.

Source. 1989 Youth Attitude Tracking Study/Alternate Questionnaire Study.